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ABSTRACT

These student instructional materials are designed to provide part of the classroom instruction for a course of study for home economics careers in food service in a home economics cooperative program. The materials are to be used for individual study with a minimum of assistance from the teacher-coordinator, and the units may be used in any order. Fifteen units cover these areas: Who are Food Service Employees, Sanitation, Safety, Nutrition, Small Equipment for Food Preparation and Service, Large Equipment for Food Preparation and Service, Large Equipment for Cooking Food, Techniques of Food Preparation, Cold Food Work Station, Hot Food Work Station, Bake Work Station, Customer Service Techniques, Food Transportation, Storeroom Control, and Introduction to Food Service Management. Within each unit are two to seven topics. Each topic begins with a related task and a statement of behavioral objectives. Information sheets are provided, and reading assignments in related texts and pamphlets are made. Study questions, assignments, and suggestions for group work follow. A list of references required for use with the instructional materials is appended. (YLB)

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HOME ECONOMICS CAREERS

IN

FOOD SERVICE

[Student Edition]

Materials Developed and Distributed by

HOME ECONOMICS INSTRUCTIONAL MATERIALS CENTER
Box 4067
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Directed by:

Texas Tech University
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Lubbock, Texas

In cooperation with:

Texas Education Agency
Department of Occupational
Education and Technology
Homemaking Education
Austin, Texas

CE 036 029

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DESCRIPTION OF
HOME ECONOMICS INSTRUCTIONAL MATERIALS CENTER

The Home Economics Instructional Materials Center was established September 1, 1967, as a continuing project. It is a cooperative project between Homemaking Education in the Texas Education Agency, Austin, Texas, and the College of Home Economics, Home Economics Education Department, Texas Tech University at Lubbock, Texas. The instructional materials developed at the Center assist teachers and coordinators in promoting and teaching home economics gainful employment programs, and consumer and homemaking education.

To provide a background of information for the establishment of the Home Economics Instructional Materials Center, a Planning Grant Project was approved by the Texas Education Agency for February 1 through August 31, 1967. The major purposes of the Planning Grant Project were (1) to assemble and catalog an occupational reference library, (2) to develop procedural steps for preparation of instructional materials, and (3) to illustrate the first sequence of these steps; that is, to develop job analyses and to list competencies needed for employability.

The present major objectives of the Home Economics Instructional Materials Center are (1) to develop instructional materials for students enrolled in cooperative part-time training programs and laboratory training programs, (2) to develop materials in consumer and homemaking education, and (3) to design materials for students with special needs including the handicapped and the disadvantaged.

Acknowledgment is given to the following persons:

Elizabeth F. Smith, former Director, Homemaking Education, Texas Education Agency, who conceived the original plan for establishing the Center.

Jean Barton, Director, Homemaking Education, Texas Education Agency, who works cooperatively with the Center to identify ways to best meet the instructional materials needs of consumer and homemaking education programs in Texas.

Dr. Camille G. Bell, Chairperson, Department of Home Economics Education, College of Home Economics, Texas Tech University, who serves in an advisory capacity.

Linda Glosson, Director
Betty Robinson, Associate Director
Rella Peterson, Assistant Director

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Noah Cromer, Owner, El Sereno Restaurant
Agnes Hicks, Manager, Hemphill Wells Tea Room
Joe Holmes, Manager, Central Food Facilities, Texas Tech University
Sarah Stalcup, Registered Dietitian, Furr's Quality Control Kitchen
Ron Vic, Assistant Manager, Kentucky Fried Chicken
Tom Walker, General Manager, Pizza Hut
Dave Wallace and Ken Gray, Managers, McDonald's Restaurants

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COURSE OF STUDY
FOR
HOME ECONOMICS CAREERS IN FOOD SERVICE

This course of study is one of a series on *Home Economics Careers* available to assist teacher-coordinators in promoting and/or teaching home economics cooperative education programs. The following are other courses of study in the series: *Home Economics Careers in...*

Child Care
Clothing Production and Service
Apparel and Accessories
Home Furnishings
Institutional and Home Management

A course of study consists of (1) an overview and job description, (2) a job analysis, (3) a course outline, (4) instructional materials for student use, (5) unit tests, and (6) a list of references required for use with the instructional materials.

Developmental Procedures

The course of study for *Home Economics Careers in Food Service* is based on the job analysis included in this set of materials. The job analysis was developed from interviews with employers and employees in food service operations. The proposed course outline for teacher use (which grew out of the job analysis) served as a guide for writing the instructional materials for student use. During the initial development of the course outline, advisory committee meetings were held to review and edit the working materials. Experienced home economics cooperative education teacher-coordinators and subject matter specialists aided in writing the student materials.

The job analysis may be used for interviews with employers and employees to survey the tasks performed by entry-level employees in food service in the local community. Results of the interviews can be used then as a basis for prioritizing tasks on the training plans for each student. The job analysis and course unit outline in this guide are coordinated with the training plan masters for *Home Economics Careers in Food Service.*

The proposed course outline relates the tasks to the general objectives and competencies needed by students to perform effectively on the job. The competencies listed as "work experiences" are to be gained primarily from on-the-job training, while those listed as "study assignments" are to be gained from classroom experience.

Student Edition

The student instructional materials in the course of study are designed to provide *part* of the classroom instruction and are designed to give students an increased understanding of the tasks they will perform on the job. The section is bound separately for student use.

Since students in any one class may be employed in a variety of occupations, the instructional materials have been developed to be used for individual study with a minimum of assistance from the teacher-coordinator. The materials are designed so students may begin with any unit and proceed through them in any order. Beginning with the units most closely related to their jobs, and then studying the rest of the information will aid students in seeing the relevance of the instructional materials to their specific jobs.

Each topic in the instructional materials begins with the task to which the topic is related and a statement of behavioral objectives. For some topics, information sheets are provided. For other topics, reading assignments in related texts and pamphlets are made. Study questions, assignments, and suggestions for group work follow the information sheet for each topic. The study questions provide an opportunity for the student to check his or her understanding of the information presented. The teacher-coordinator may wish to check the answers to the questions, or may suggest that the student check his or her own work and then turn in the work. Group work is suggested to provide opportunities for students to work together on specific projects and problems.

Teacher's Edition

Answers to study questions, unit tests, and answer keys are included in the teacher's edition of the course of study, but not in the separately bound student copy of instructional materials.

Reference materials essential for use with the course of study are listed on page 715. These books must be secured and made available for student use. An effort has been made to select references which will adequately cover the materials and provide up-to-date information related to the job. However, in order to select current materials at a ninth or tenth grade reading level, it may have been necessary to select some references which contain sex bias. The teacher should discuss evidence of sex bias with students to make them aware that male and female roles and job opportunities are changing in today's world.

A more comprehensive reference list is included in the *Guidebook for HECE Occupational Areas.* Additional references should be selected from this list to enrich the instructional materials, to provide specialized information for specific types of jobs, and to meet the needs of advanced and second-year students. Learning to use a variety of references will aid the student in becoming a more knowledgeable and flexible employee.

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INSTRUCTIONAL MATERIALS
FOR
STUDENTS

WHAT IS A COURSE OF STUDY?

INTRODUCTION TO STUDENTS

Bob: What's this new course of study we're going to be using in our HECE (Home Economics Cooperative Education) class all about? The cover looks great, but I don't know about what's inside.

Kathy: I think it's going to be a big help to us both in class and on our jobs. We'll use it in class on the days when we're supposed to study about our particular jobs.

Bob: That should help, I guess. What do we do--start at the beginning and go straight through it?

Kathy: Not necessarily. The course of study is divided into units and topics related to tasks we might perform on our jobs. Our training plans will tell us which lessons to study. We will be studying in class about the things we are learning on our jobs.

Bob: You mean I don't have to go through all of it? That sounds great!

Kathy: Well, since jobs vary so much and the authors tried to include information for different kinds of jobs, there may be some units that won't apply to us right now. But I think it helps to know what else is going on where we work, or what some of the other job opportunities are. The more we know, the more successful we'll be on our jobs, and the better chance we'll have to get a job somewhere else.

Bob: I suppose you're right about that. Besides, I noticed some units, like the one on sanitation, that would apply in one way or another to everyone who's a food service employee. What if the course of study says to do something one way, and your supervisor wants it done another way?

Kathy: That probably won't happen, but if it should, always go by what your supervisor says. After all, the supervisor hired you.

Bob: Now I have another question. I saw references listed at the beginning of some of the topics. Do we have to read those? Isn't the same information in the course of study?

Kathy: No, the references include different information so it's important that we read them in addition to the course of study. I know it's a bother to read the references sometimes, but there would be no point in putting something in the course of study that was already available. Besides, I've found some information that wasn't assigned in the references that was helpful to me.

Bob: I saw questions, assignments, and suggestions for group work at the end of each topic. What's the difference? They all sound like work to me.

Kathy: The questions are to help us see if we understand what we've read, and the assignments give us a chance to apply what we've read to our jobs. The assignments help us see how the things we've learned relate to what we do. There's no right or wrong answer to an assignment; what we do is left up to us. The suggestions for group work give us a chance to work together on things we all need to learn. Working together gives us a chance to share problems and ideas. Besides, it's more fun than working by yourself all the time.

Bob: I noticed some unfamiliar words that were in italics and followed by definitions. I hope the course of study explains all the new words.

Kathy: I'm sure it explains most new words, but it's impossible to know every word that might be new to each and every student. So, when I don't understand a word, I look it up in the dictionary.

Bob: That's a good suggestion. I sometimes forget how helpful dictionaries can be!

Kathy: Any more questions?

Bob: Not right now. I want to do well on my job and I think the course of study will help me. I'm ready to get started on Unit I.

INDIVIDUAL STUDY RECORD

Use the chart below to keep a record of your studies. Note the date you complete each part of a lesson and your grade in the correct columns. When you have completed *all* the lessons in one unit, ask your teacher for the unit test.

	Study Questions		Assignments		Group Work		Unit Test	
LESSON	Date	Grade	Date	Grade	Date	Grade	Date	Grade

UNIT I-1

WHO ARE FOOD SERVICE EMPLOYEES?

SUBJECT: Job Opportunities in Food Service

TASK: 1. Accept instruction and guidance from supervisory personnel in performing duties assigned to a food service employee.

OBJECTIVES: When you finish this lesson, you should be able to
a. cite characteristics of the food service industry
b. describe the various tasks assigned to food service employees
c. summarize job opportunities in food service.

REFERENCE: Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 12-37; 56-94.

The food service industry serves nearly everyone at one time or another. Americans eat between 33 percent and 50 percent of their meals away from home. The food service industry serves more than 750 million meals each day. Only a few years ago, few families ate out. Some reasons for the increase in meals eaten away from home include: (1) the higher standard of living, (2) the increase in leisure time, (3) the inability to hire help in the home, (4) the increased number of women working outside the home, and (5) the desire for specialized foods. These reasons partly account for the growth of the food service industry, which now ranks fourth in dollar volume among all American industries. This huge industry satisfies the public's desire to eat out with 34 billion pounds of food each year at a cost of $100 billion. Approximately 550,000 commercial and institutional food service establishments operate in the United States today. These establishments employ over 3,000,000 people. More than 250,000 openings are expected annually in the restaurant industry alone through the late 1980's.

The opportunities in food service are thus tremendous, at both the worker and managerial levels. The food service industry offers chances to progress almost as fast as the employee is willing and able to assume the additional responsibility. High schools and colleges now offer training in the various areas of food preparation, food service management, and dietetics. The number of openings in food service occupations indicates the need for trained personnel in every phrase of the industry. An employee with interest, ability, and training will find many opportunities in food service.

A few years ago, a person could become manager of a restaurant by working up from an entry-level position. This is still possible in many of the food operations today. Top-paying jobs in some organizations, however, may require either an associate degree or a bachelor's degree in food and nutrition or management. Many community colleges offer degrees in restaurant management for mangement trainees and prospective managers. However, to become a dietitian a person must attend an accredited four-year college or university with ADA-approved coursework and receive a bachelor's degree in either food and nutrition or institutional management. Usually the person then completes a program as a dietetic intern. An internship may range from six months to one year. The internship consists of learning while on the job in a hospital or in an approved institution. An internship is similar to an apprenticeship because a person learns by practical experience under skilled workers. Besides the apprenticeship type of internship, a few internship programs are combined with an undergraduate or a master's degree in a university setting. Employers sometimes send employees to college or other training programs to further their educations and increase their value as employees. Scholarships for promising young men and women are available often from local associations or educational institutions.

Food production involves a wide range of skills. Jobs range from pantry worker to executive chef. Most persons in the food service industry change positions to advance their careers as they acquire additional skills. Sources of training vary. Many highly skilled food service workers obtain their training in a branch of the military. Some of the most famous chefs in the United States train in the traditional apprentice programs in Europe. A limited number of apprentice programs are available in the United States. One major school in the United States devoted to training chefs is the Culinary Institute of America located in Hyde Park, New York.

Each person in food service is dependent on other employees. Failure of even one employee to perform her/his job properly affects every other employee in the establishment. For example, if the individual performing busing duties is slow in cleaning tables and resetting them, customers line up waiting for clean tables. The kitchen begins to run out of dishes. Waiters and waitresses may have to interrupt their duties in order to clean tables. Customers begin to grow impatient. Some are tired of standing and waiting for a table. Others are unhappy that the waiter/ waitress is too busy to refill their coffee cups or take their orders. Waitresses and waiters are delayed in picking up orders from the kitchen. The delay affects the quality of food and this angers the kitchen staff. Before long, everyone in the restaurant is short-tempered due to the additional pressure. Absenteeism, delays, and additional pressures lead also to irritability and discontent among employees in nursing homes, hospitals, cafeterias, and other food service organizations.

Every single job in food service is important. The dedicated efforts of each employee is required for a smooth, uninterrupted operation. Happy, efficient employees encourage happy, satisfied customers and patients.

Although the reference lists minimum requirements for employment, Affirmative Action laws can challenge these. The employee does not have to speak English, have a high school diploma, be 18-55, or be without handicaps. The job may be *easier* if the employee meets all the requirements, but the employer cannot discriminate because of age, sex, race, or handicap. One requirement enforced in Texas is that employees must be at least 18 to serve liquor.

TASKS PERFORMED BY FOOD SERVICE EMPLOYEES

As a participant in the Home Economics Cooperative Education (HECE) program, you may select from a wide range of job occupations. Those pursuing placement in a food service-related job may hold one of the job titles listed in the *Dictionary of Occupational Titles* (described below and on the following pages). In order to understand the obligations associated with each title, it is important to have a knowledge of the job responsibilities of persons who work in various food service-related areas in the HECE program. However, with the increased costs of labor and food, employees must be as versatile as possible. Employers cannot always afford to hire separate personnel for each of the jobs listed, so one person may be expected to carry out a variety of tasks. Employees who welcome opportunities to work at different types of job assignments increase their job opportunities in the food service industry.

Dining Room Attendant

Dining room attendants, or busboys and busgirls, do any work needed to assist waitresses and waiters in serving customers. This means they may work in all areas of the restaurant. They are responsible for keeping the serving area orderly and clean. Linens, table settings, flatware, and glasses must be brought to the serving area and then arranged on tables for customers. *Condiments*, flavorings used to season foods, and ice must be kept in supply. The attendants may serve ice water, butter, or other items to customers. They may carry trays of food. When customers are finished, busboys and busgirls remove dishes from the tables. Dirty dishes must then be returned to the dishroom. Tables and chairs must be cleaned.

Dining room attendants assist in any way needed, so their responsibilities are numerous. They may make coffee or iced tea. Dispensers and service stands must be filled. Errands need to be run. Tables need to be rearranged for different groups. Cleaning may include mopping or vacuuming floors, polishing glass shelves and doors, or straightening up supply areas. In some hotel restaurant positions, the dining room attendant may deliver food.

Counter Attendant

Counter attendants serve food to diners seated at a counter. Duties of counter attendants include calling orders to the kitchen, picking up orders, and serving orders. Counter attendants may write itemized checks for service or accept payment. Other duties might include preparing sandwiches, salads, and other short-order items; cleaning counters; and washing dishes. This is often an entry-level position.

Counter Attendant, Cafeteria

Cafeteria counter attendants serve cafeteria patrons. This may involve serving salads, vegetables, meats, breads, soups, or sauces. Desserts, relishes, and garnishes have to be prepared. Beverages must be served. There are many other duties as well. Coffee and tea must be made. Meat needs to be carved. Some salads need preparing. Serving stations need to be filled with supplies such as ice or water. Counters and steam tables must be kept clean. In some cafeterias, counter attendants may use the cash register to total checks and receive payment for food.

Waiter/Waitress, Informal

Informal waiters and waitresses serve food to patrons where food service is informal. Informal service is used at counters and tables of coffee shops, lunchrooms, and other dining establishments. Entry-level employees take orders for food and place orders for each course in the proper sequence in the kitchen. When the food is ready, they carry the food from the kitchen to the tables or counter. Food is served in the customary way of the restaurant. The customer is the waitress' or waiter's primary concern whose needs are met in any possible way. Informal waitresses and waiters may be responsible for clearing tables, totaling bills, or accepting payment. They also may serve soup, toss salads, portion desserts, brew coffee, or reset tables.

Waiter/Waitress, Formal

Formal waitresses and waiters serve meals in a more formal setting. Part of the attraction for formal dining is the atmosphere. Formal waitresses and waiters must be good at "putting on a show" for their customers. They must know the correct techniques for carving meats, boning fish and fowl, or preparing flaming dishes right at the customer's table. They cater to the customer's desires by constant attention. In some restaurants, they may clear the tables or accept payment. Although as an entry-level employee you will not hold such a position, you may assist by presenting menus, relaying orders, or busing tables.

Waiter/Waitress, Head

Head waiters and waitresses are responsible for supervising dining room employees and coordinating their activities so diners receive the best possible service. They may hire and train the employees as well as keep track of work schedules. They handle complaints and do whatever is necessary to satisfy customers. Menus, details for parties and banquets, dining reservations, and seating arrangements all may be planned by them.

Host/Hostess, Restaurant

Sometimes head waiter and waitress responsibilities may be combined with those of the host or hostess. The main responsibility of hosts and hostesses is to make the customer feel welcome and comfortable. The hostess or host should greet the guests pleasantly, take them to their specified table, and provide them with menus. The host/hostess handles reservations and seating arrangements, controls employee workloads by seating arrangements, inspects the dining room and serving stations for neatness and cleanliness, and requisitions table linens and other dining room supplies for tables and serving stations. In some food service establishments, the hostess/host may be asked to assist in training dining room employees. The host or hostess also may assist in keeping time records of dining room workers.

Kitchen Helpers

Kitchen helpers are the "jack-of-all-trades" in the kitchen. Their primary responsibility usually is keeping the kitchen safe and clean. This includes cleaning and sanitizing worktables, steam tables, steam table trays, walls, floors, pots, and pans. A knowledge of the care and cleaning of kitchen equipment is essential for this job. Kitchen helpers may do such other duties as washing glasses, dishes, or flatware; moving or filling supplies; or removing trash and garbage.

Cook Helper

Cook helpers, too, are "jack-of-all-trades" but concentrate more on food preparation. They learn how to prepare a variety of foods–meats, soups, sauces, vegetables, and desserts. They may weigh and measure ingredients and learn various cooking techniques. But cleaning is an essential part of cooking too. Cook helpers may learn to store food correctly, clean work areas and equipment, distribute supplies, or do any other responsibilities the cook assigns.

Cook Apprentice

The cook apprentice is that person learning to become a cook. The apprentice usually is trained directly by the cook in the kitchen. Cook apprentices measure, mix, prepare, and cook foods. They select and use correctly kitchen utensils and equipment. They learn to evaluate the quality of food prepared. Cleaning work areas, equipment, and utensils may be their responsibility also.

Cook

The cook is the person in charge in the kitchen. The cook makes most of the decisions as to how and when tasks should be carried out. The main duty of the cook is to see that foods are prepared properly. Cooks often are given titles that indicate: (1) the kinds of foods being prepared, (2) the methods of preparation, (3) the cook's skill and rank in the kitchen (if there are several cooks), or (4) the meal being prepared. Thus, a cook may be called a vegetable cook, fry cook, first cook, or breakfast cook.

In small establishments, cooks are less specialized and perform a greater variety of tasks. They may prepare and/or supervise the preparation of all items on the day's menu. Cooks employed in large food service establishments may prepare only specific foods. One cook may prepare vegetables, another fish, another desserts. In other food service businesses, cooks may specialize in one method of preparation, such as broiling, baking, or frying.

Cooks prepare, season, and cook foods. They supervise the use of ovens, broilers, grills, roasters, and steam kettles. Ingredients are measured and mixed according to their discretion. They supervise the use of kitchen utensils and equipment, such as blenders, mixers, grinders, slicers, and tenderizers. They observe and test food that is being cooked. Meats often are prepared by them, as well as gravies, sauces, and garnishes. They may bake bread, rolls, cakes, and pastry. In a small food service business, they may price menus or order supplies and check the quality of food delivered.

Cook, Short Order I

Employees with the title Short Order Cook I prepare and cook to order foods requiring a short preparation time. Entry-level employees fry foods on a grill. They carve meats and fill orders from a steam table. They prepare sandwiches, salads, and beverages.

Cook, Short Order II

Employees with the title Short Order Cook II prepare foods. They cook foods requiring a short preparation time. They complete orders from the steam table and refrigerated units. Other responsibilities consist of carving meats, making sandwiches, brewing coffee, etc. The short order cook II usually works in a small food service establishment, such as a lunch counter or snack bar.

Cook, Specialty

Specialty cooks prepare special foods such as fish and chips, or tacos. They also prepare and serve beverages such as coffee, tea, or fountain drinks. Sometimes specialty cooks exercise showmanship in food preparation by flipping pancakes or tossing pizza dough in the air.

Cook, School Cafeteria

School cafeteria cooks prepare food for consumption in the school cafeteria. Entry-level employees measure, mix, prepare, and cook foods. They select and use correctly kitchen utensils and equipment. They portion and serve foods. Housekeeping duties often will include washing dishes, and cleaning tables, work areas, equipment, and utensils.

Food Order Expediter

Food order expediters call out and verify food orders in many types of food service. Responsibilities of these employees include calling out food orders to cooks or pantry and fountain workers, examining portions, and garnishing completed food orders. They review orders for accuracy, tabulate checks, and notify serving personnel when orders are ready. Another possible duty of food order expediters is recording the count of items drawn from the supply for food control data. In some food establishments, food order expediters prepare and cook foods that can be completed in a short time.

Diet Clerk

Diet clerks work in health care facilities. Diet clerks compile dietary information for use by kitchen personnel in preparation of foods for hospital patients. They examine diet orders from wards, and tally portions and foods for general and special diets. They process new diets and diet changes as required, and type menus. Another responsibility may be to maintain records and prepare reports on perpetual inventories, food purchases, meals served, and food costs. Entry-level employees may assist with filing materials, and keeping inventory records. Beginning employees also may make tabulations for various general and therapeutic diets to be prepared and assembled for meals.

Dietary Aide

The tasks of dietary aides vary according to the place of employment. Persons receiving services of dietary departments may be either patients in hospitals, or patients or residents in nursing homes. Dietary aides may work under the daily supervision of a full-time dietitian in a large hospital or a part-time dietitian or food service supervisor in a small hospital or nursing home. Dietary aides wrap glassware, flatware, and similar items for tray-line assembly procedures. They follow diet instructions when filling plates and trays for general and modified diets. Some food items may be prepared by them. They may serve foods on a tray-line assembly and deliver or pick up patient trays. Some clerical work in the dietary office may be done by aides.

Food Service Worker, Hospital

Hospital food service workers prepare and deliver food trays to hospital patients. These employees read production orders on color-coded menu tray cards to determine appropriate items to place on trays. They place items such as flatware, fruit juice, sugar, cream, milk, and butter on trays. They portion food servings according to the diet list, and place servings in the blender to make foods for soft or liquid diets. Other responsibilities include examining filled trays for accuracy, delivering the trays to halls or ward kitchens, serving trays to patients, collecting and stacking dirty dishes on carts, and returning carts to the kitchen. They wash dishes, clean work areas, and collect garbage and trash in designated containers. Hospital food service workers may be asked also to record amounts and types of special food items served to patients.

Caterer Helper

Caterer helpers prepare and serve food and refreshments at social affairs under the supervision of a caterer. Entry-level tasks in catering involve following directions exactly, communicating all concerns that would directly affect the catering operation, performing housekeeping duties, preparing food, and using appropriate service techniques. Caterer helpers arrange tables and decorations, prepare selected food items, pack and transport foods and beverages to guests, and wash and pack dishes and utensils for removal to the catering establishment.

Baker

Bakers mix and bake ingredients according to recipes for breads, pastries, and other baked goods. Entry-level employees assist the baker. They do such tasks as measuring, mixing, and baking ingredients. They use equipment such as scales, graduated containers, mixing machines, steam kettles, ovens, pans, molds, sheets, and utensils. Bakers must be able to recognize the color and texture of quality products. They make the finished product attractive by applying glaze, icing, or other toppings to the baked goods.

Baker Apprentice

Baker apprentices are trained according to a written or oral contractual agreement. They learn the skills and trade of a baker through on-the-job training. The length of apprenticeship varies with the size and type of food service establishment. While learning the techniques for baking, baker apprentices learn a variety of skills. They measure, mix, and bake ingredients. They use equipment to roll, cut, and shape dough. Quality measures, such as color and texture, must be learned. Finishing touches, like glazes and icings, are learned and applied.

Baker Helper

Baker helpers assist the baker in the baking department. Baker helpers perform a variety of tasks. They carry and distribute supplies and equipment. They may mix, knead, shape dough, and cut the dough into uniform portions. Pans are greased and lined with wax paper. The baker helper places pans of dough into the oven to bake and removes them when finished. Bakery utensils, equipment, and the work area must be kept clean.

Cake Decorator

Cake decorators decorate cakes and pastries with designs, using icing bags, cones, or tubes. In small establishments, cake decorators may begin at entry-level positions in sanitation and general housekeeping tasks and work up to cake decorator. Each food service establishment has its own requirements. Some prefer formal training in cake decorating, whereas others would rather train their decorators according to their own methods. Beginning cake decorators learn techniques for trimming uneven surfaces of cake. They cut cakes to required size, spreading icing between layers and on surfaces of cake. They tint white icing with food coloring and learn to use an icing bag and other tools to form decorations for the cake. Mixing icing also may be part of the cake decorator's duties.

Doughnut Maker

Doughnut makers mix, form, and fry dough to produce doughnuts. Doughnut makers prepare the dough and operate the frying tank. They cut the dough with the doughnut cutter and cook the doughnuts. After frying the doughnuts, they glaze, decorate, or fill them. Procedures for making doughnuts may vary depending on the equipment used. In some establishments, the dough may be rolled with a rolling pin and the doughnuts formed with a hand cutter. In some doughnut shops, hooks may be used to lower a wire tray of uncooked doughnuts into the fryer.

OPPORTUNITIES FOR ADVANCEMENT

Food Service Supervisor

Food service supervisors supervise and instruct food service employees and maintain high standards of food preparation, sanitation, and safety. Jobs as food service supervisors usually require a high school diploma or equivalent. Such jobs may require special course work in food service supervision, and work experience in all phases of food service. In a large institution with a dietitian in charge of food service, there may be several food service supervisors. Each may supervise a different part of the service.

Entry-level employees may assist in serving food in hospitals, nursing homes, schools, or college food facilities, and other food service operations. These employees may be responsible also for maintaining the cleanliness of the food service areas, kitchen utensils, and equipment. Depending upon the size of the institution, entry-level employees may be asked to assist with keeping records and taking inventories.

Chef

Chefs supervise, coordinate, and participate in the preparation and cooking of foods. Chefs work in all types of food service operations. Entry-level employees assist the chef as needed. Chefs may keep records of food consumed, food requisitioned, and foodstuffs and supplies delivered. They may prepare foods of any sort. Entry-level employees cut, trim, and bone meats and poultry for cooking. They portion and garnish cooked foods. Depending upon the size of the food establishment, the entry-level employee may assist with preparing foods according to specific directions.

Manager, Food Service

Food service managers have many important responsibilities. Managers coordinate food service activities. Managers estimate food and beverage costs. They requisition and purchase supplies. Managers hire, train, and supervise employees. They investigate and resolve service complaints. Management level positions in different types of food service operations include manager, assistant manager, department supervisor, dietitian, caterer, and executive chef. A management job requires a high level of skill, knowledge, and experience. Such a job is generally open to persons who are graduates of colleges, universities, and special schools, and who have a business management or food production background. However, some food service establishments train their managers in their own procedures and management philosophies.

Management jobs also can be achieved by working up from an entry-level position. In these establishments, an employee may hold various food service positions before reaching the management level. A management job is a reasonable goal for an entry-level employee who is willing to work hard and learn as much as possible about the food service business. An excellent way to work into a management position would be by a training course which provides both classroom instruction and on-the-job experience.

Dietitians

Dietetics is a profession in the food service and health field which focuses on nutrition. The demand for qualified employees in the field of dietetics is increasing. A college degree is necessary to become a dietitian. Dietitians can then become registered by meeting additional education requirements, filling an approved period of practical experience, and completing successfully the registration exam. Job opportunities for registered dietitians include clinical dietitian, educator dietitian, research dietitian, nutritionist, and management dietitian. A dietitian can advance to assistant director or director of a dietary department in a hospital or other institution. However, positions as educator or research dietitians usually require advanced college degrees.

Clinical dietitians are members of the health care team which provide nutritional care to patients. In this position, the dietitian plans both normal and therapeutic diets for patients as prescribed by doctors. (A therapeutic diet makes certain changes in the patient's diet as part of the patient's treatment.) In addition, the clinical dietitian counsels patients on their food needs to help them fit their new diets into their lives at home once they leave the health care facility.

Community nutritionists are community-oriented persons who work to improve the health of the community by teaching persons how to obtain the best nutrition possible for their age and income level. A nutritionist may be employed by prenatal and well-baby clinics, day care centers, children's institutions, neighborhood health clinics, homes for the aged, schools, and organizations.

Dietetic Technicians are persons who have completed successfully an approved associate degree program in dietetic technology from a two-year college. The dietetic technician may help schedule employees' working hours, purchase foods, receive and store food, carry out the safety program, help with the maintenance of equipment, and maintain standard food quality and nutritional value through recipe standardization and supervision.

Dietetic Assistants have participated in a 90-hour program during a one-year period. The duties of a dietetic assistant may include aiding in the overall operational system, helping maintain good customer relations, helping in menu planning, and helping with educational programs for employees. The dietetic assistant also may be responsible for employees in one specific area.

Educator dietitians coordinate dietetic education programs in hospitals affiliated with medical centers and universities. They may be also on college and university faculties teaching such courses as nutrition, commercial food production, or food service management. Others may work with business organizations developing materials for programs on nutrition education which then can be adapted either for use in mass media or for special interest groups.

Research dietitians are affiliated usually with a medical center. In this capacity, the dietitian plans and carries out nutrition studies. A research dietitian also may work with business organizations or food manufacturers. Here the dietitian conducts research to improve both the methods of processing food, and its quality, flavor, and nutritive value.

QUESTIONS:

1. List five factors contributing to the growth of the food service industry.
   a.
   b.
   c.
   d.
   e.

2. Define dietetics.

3. What does *la toque blanche* represent?

4. List the four elements of food service which the management must control.
   a.
   b.
   c
   d.

5. List four groups into which food service employees may be categorized.
   a.
   b.
   c.
   d.

6. List five employees by title who work the "front-of-the-house."
   a
   b.
   c.
   d.
   e.

7. List five employees by title who work the "back-of-the-house."
   a.
   b.
   c.
   d.
   e.

In Items 8-17, write the food service term for each definition in the blank provided.

______________________ 8. Payment of a fee to an established successful food service business for the privilege of using their name, methods, and building design.
______________________ 9. Coin-operated food service.
______________________10. Large kitchen where food is prepared and assembled for distribution to smaller food service units.
______________________11. Food service facilities in plants or office buildings which serve meals to employees.
______________________12. Money taken in.
______________________13. Money left after expenses.
______________________14. Cost of rent, utilities, maintenance of equipment and repairs.
______________________15. Record of the amount of food and supplies on hand.
______________________16. Procedures for checking in purchases as they are delivered.
______________________17. Procedures for supplying items requisitioned.

In Items 18-25, match each type of dietetic personnel with its job description. Place the letter of the type of dietetic personnel in the blank to the left of its job description. Use each letter only once.

Job Description

______18. Maintains registration by meeting continuing education requirements during a five-year period.
______19. Plans both normal and therapeutic diets for patients as prescribed by doctors.
______20. Maintains good customer relations, assists with educational programs for employees, and helps plan meals.
______21. Plans and carries out nutrition studies affiliated with a medical center.
______22. Provides nutrition education to help improve the health of the community.
______23. Coordinates dietetic education programs in hospitals affiliated with medical centers and universities.
______24. Helps in scheduling employees' working hours, purchasing food, receiving and storing food, and maintaining quality and recipe standardization.
______25. Supervises and instructs food service employees to maintain high standards of food preparation, sanitation, and safety.

Type of Dietetic Personnel

a. Clinical Dietitian
b. Dietetic Assistant
c. Dietetic Technician
d. Educator Dietitian
e. Food Service Supervisor
f. Community Nutritionist
g. Registered Dietitian
h. Research Dietitian

GROUP WORK:

I. Discuss with class members the tasks you perform on your job. Compare the tasks you perform with tasks performed at other training stations. Use the descriptions in this lesson as a basis for discussion.

II. Working with other food service employees or dietary aides, make a group presentation to the entire class describing career opportunities in food service. Use visual aids to make your presentation interesting.

III. Make posters describing career opportunities which HECE students can begin working toward while they are in high school. Place posters in prominent places in school to encourage students to enroll in the program during spring recruitment.

IV. View a film or filmstrip on food service careers or dietetics.

V. Invite food service managers, members of your state restaurant association, and dietitians to participate on a panel. Ask participants to provide information on starting salaries, salary increases, job advancement opportunities, the average amount of tips collected, training available, number of people employed, advantages and disadvantages of food service jobs, and working hours.

VI. Work with other food service employees or dietary aides and survey your community to locate places in which food service and dietetic personnel are employed. Use the yellow pages of the telephone directory and "help-wanted" ads in the newspaper to get started.

UNIT I-2

WHO ARE FOOD SERVICE EMPLOYEES?

SUBJECT: Employee Qualifications

TASK: 1. Accept instruction and guidance from supervisory personnel in performing duties assigned to a food service employee.

OBJECTIVES: When you finish this lesson, you should be able to
a. describe expectations employers have of food service employees
b. summarize qualifications required in food service and dietary jobs
c. list factors which influence conditions under which food service employees work.

"Don't ask me ... I just work here."

REFERENCE: Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. [illegible]-43.

ATTITUDES

When food service employees begin work at their training stations, they are on the first rung of the "world of work" ladder. Whether they fall off, remain on the same rung, or move to higher rungs depends largely upon their personal qualifications and interpersonal relationships with other personnel. They learn, sooner or later, that it is often easier to secure a job than to hold it and to earn promotions.

If food service employees want to be successful, they should examine their attitudes toward their employer, their fellow workers, and their job. The relationship between these attitudes and success on the job cannot be overemphasized. A positive attitude is a priceless possession. Therefore, creating and keeping a positive attitude toward your job, company, and life will make you a happier and more successful person.

Attitude Toward Employer

An important attitude to develop is loyalty to your employer. This means that you are concerned with the services provided in the food service business, school, hospital, or nursing home where you are employed. You want the customers, students, or patients to receive the best food, care, and service possible. Even though you may feel your role is insignificant, it takes everyone working together to keep things running smoothly. Willingness to observe the rules and policies of the business is also part of being loyal to your employer.

The ability to follow directions and accept suggestions and criticism improves your job performance. Your supervisor's comments are meant to help you to do a better job, not to hurt your feelings. Your employer usually has good reasons for expecting tasks to be performed in a certain way. An attitude of open-mindedness is an asset in any job.

Attitude Toward Fellow Employees

Your ability to get along with others influences your success as a dietary aide or food service employee. A friendly, sincere manner, a willingness to do your share of the work, and respect for the knowledge and skill of more experienced employees contribute to good relationships.

One of the most important factors in working as a member of the food service team or the dietary team is to look for jobs to do when your tasks are completed. Assisting other employees provides additional job experiences and lets them know that you are cooperative. *Flexibility* is another important trait. Emergencies may occur which disrupt the usual work schedule, and you may be asked to do some extra task or help another employee with his job. The ability to change your activity or line of thought quickly is part of being flexible.

Attitude Toward the Job

Your job as a food or dietary employee deserves your undivided attention and your best efforts. You should bring to your job a genuine interest and positive attitudes. Be in good physical condition. All this helps you give a high quality performance.

EMPLOYMENT ETHICS

Absenteeism

Food service establishments and dietary offices divide their work loads so that every employee should report to work for the operation to run smoothly. Many persons depend upon your services, and you are needed every day that you are scheduled to work. In the event of an emergency, such as illness or death in the immediate family, notify your supervisor at once. An excessive number of absences is cause for dismissal and unexcused absences can result in immediate dismissal.

You should remain at home if you have a communicable disease or are too ill to perform your duties. Excessive absences due to illness, however, should cause you to examine your health habits. You should get adequate rest, eat well-balanced meals, and take the necessary precautions for resisting infections.

During working hours, your supervisor should know where you are at all times in case of an emergency. Do not leave the premises without your supervisor's permission.

Tardiness

Reporting to work on time is important. Your tardiness leaves your work undone, or other employees have to double up to do it. If you find that you cannot report to work on time because of an emergency, notify your supervisor as early as possible. Repeated tardiness is a reason for dismissal.

Smoking and Eating

In the food service establishment or dietary department where you are employed, you are responsible for knowing the rules governing smoking, coffee breaks, and times for meals. You should not chew gum while on the job. You should not sample the food, eat in the kitchen, or eat behind the service counter while working.

Controlled Substances

Drinking on the job, possessing alcoholic beverages, or reporting to work under the influence of alcohol is forbidden. The use of any controlled substance is forbidden as well.

Misuse of Work Time

Avoid the misuse of time when you are scheduled to work. Personal phone calls are a misuse of work time. Keep your personal phone calls to a minimum. When you must make a personal phone call, use a pay phone on your own time. By using the pay phone you will leave the business telephone lines open for important calls. Undue loafing, idleness, gossip, visiting with friends, horseplay, and disorderly conduct represent a waste of time. Reading books, writing letters, or studying for other classes are nonproductive too. This misuse of time interferes with employees who are trying to do their work.

Use of Abusive Language

Watch your language. Cursing and crude gestures are out of line on any job. Use the best grammar you can and work to improve your grammar if necessary.

Dress Code

You are responsible for understanding and dressing according to the dress code regulations of the food service establishment where you are employed. Personal neatness and absolute cleanliness are especially important. Use an effective deodorant. Avoid excessive makeup and jewelry. Wear appropriate undergarments.

PERSONAL CHARACTERISTICS

In addition to the attitudes mentioned above, certain personal traits are desirable. Employers not only look for these qualities when you are applying for a job but will use them as a basis for evaluating you as one of their employees. A person's failure to keep a job is more often due to a lack of desirable personal characteristics than to a lack of job skills. These traits may be improved and developed if you make a sincere effort.

A person interested in the food service or dietary field should possess curiosity, imagination, and creativity, together with the following qualities:

- Interest in people
- Aptitude for science
- Management ability
- Willingness to work hard
- Open mind
- Good health
- Emotional stability
- Knowledge of food
- Desire to learn
- Flair for salesmanship

Other personal traits which are important to success as a food service or dietary employee are human relations skills, math skills, and a basic education.

EDUCATIONAL REQUIREMENTS

Educational requirements for food service employees vary from less than a high school diploma to a college degree, depending on the job type and the employer. However, in most jobs, even though a college education is not required, persons with an education seem to advance more rapidly. Some positions in food service require no previous training, experience, or education. The employee who trains on the job usually receives a small salary during the training period but is rewarded with a raise after learning the required skills. Jobs of this type are usually found in the restaurant and cafeteria business, including hostess/host, waiter/waitress, dining room attendant, and sanitation and maintenance employees.

Jobs for managerial positions, such as food service supervisor, chef, purchasing agent, food checker and cashier, require some training and/or experience. However, for a position as a dietitian, much more education is required. After attending an accredited college and receiving a bachelor's degree in either food and nutrition or institutional management, one must complete a program as a dietetic intern. An internship may range from six months to one year. The internship consists of learning while on the job in a hospital or in an approved food service institution. An internship is similar to an *apprenticeship* because a person learns by practical experience under skilled workers. Besides the apprenticeship type of internship, a few internship programs are combined with an undergraduate or a master's degree in a university setting.

The initials "R.D." following the dietitian's name indicate that the person is a Registered Dietitian. A dietitian becomes registered by completing successfully a national examination taken after obtaining membership in the American Dietetic Association. A dietitian maintains registration by meeting continuing education requirements during each five-year period.

FEDERAL LAWS

Some food service institutions must meet certain laws, policies, and regulations which are enforced by the federal government. If a hospital or nursing home participates in the Medicare program, the institution must meet certain requirements. A basic knowledge of these requirements is important, especially to the dietary aides, so that they can fulfill their roles as members of the dietary team and assist the hospital or nursing home in maintaining the established standards. In general, the requirements which may affect dietary aides are as follows:

1. There must be a qualified dietitian on the staff. A person designated by the administrator is responsible for the total food service. If this person is not a qualified dietitian, then regularly scheduled consultation from a qualified dietitian (or other person with suitable training) must be arranged. The dietitian must have a basic knowledge of the therapeutic diets prescribed by the attending physician.
2. There must be an adequate number of dietary employees, and their working hours must be scheduled to meet the dietary needs of the patients. Dietary services must be available for a period of 12 hours per day. Employees are trained to perform assigned duties and may rotate with other employees in assignments and shifts. Work assignments and duty schedules must be posted.
3. Personnel must be clean and neat. The dietary personnel must wear clean, washable garments, and hair nets or clean caps; and they must keep their hands and fingernails clean.

4. Personnel must have periodic health examinations to meet local, state, and federal codes. Food handlers' permits or health certificates must be current. Personnel with symptoms of communicable diseases or open, infectious wounds are not permitted to work in dietary services.

Institutions participating in the Medicare program must observe a number of additional regulations regarding facilities, housekeeping, and dietary services. Copies of these requirements may be obtained from:

U.S. Department of Health and Human Services
Health Care Financing Administration
Medicare Bureau
Washington, D.C. 20201

Every hospital and nursing home has standards which should be followed, but these standards may vary in different institutions. It is the responsibility of the administration to inform the employees of the rules, regulations, and policies of the particular institution. Although many of these rules, regulations, and policies cover the entire personnel of the hospital or nursing home, some of them apply specifically to the dietary department. In this case, the head dietitian informs the dietary aide of the specific standards applying to the department. The dietary aide is responsible for becoming familiar with these rules, regulations, and policies. Thorough understanding of these requirements enables the dietary aide to perform adequately as a member of the dietary team.

DIETARY DEPARTMENT SCHEDULES

The main objective of the dietary department, large or small, is to get the appropriate food to the patient as quickly as possible so that it is of acceptable quality and at the proper serving temperature. Dietary department schedules must be met so that the food is served to the patient on time. If all members of the dietary team, including the dietary aide, complete their tasks quickly and efficiently, the team can reach its objective of delivering quality food to the patient.

Dietary departments are responsible for providing three meals and additional nourishments each day. Generally, more patients are in the hospital for the noon meal; therefore, noon is a particularly busy time for hospitals. Although the number of meals served to residents and patients in nursing homes does not vary as much as in hospitals, the serving of the noon meal still requires more personnel.

The split or staggered shift helps the dietary department to supply more personnel at the time meals are being served. Shifts are also staggered or split to enable the hospital or nursing home to provide dietary services for the required number of hours of operation.

In the *split* shift, the bulk of time worked by each employee is scheduled for early morning and late afternoon hours with a block of unassigned time separating the two portions of the shift. (For example, 9:30 a.m. to 1:30 p.m., then 4:00 p.m. to 7:00 p.m.) The employee who works *staggered* shifts begins work at a designated time and continues to work the required number of hours. Other employees in the same department begin and end their work shifts at different times during the day to complete the range of hours required for dietary services. (For example: employees' shifts may begin at 6:00 a.m., 7:00 a.m., 11:00 a.m., or 3:00 p.m.)

QUESTIONS:

1. Make a list of at least six attitudes or traits which contribute to the success of a food service or dietary employee.
   a.
   b.
   c.
   d.
   e.
   f.

2. List two important responsibilities of the dietary aide or food service employee regarding absences.
   a.
   b.

3. Give four examples of "[illegible]use of work time."
   a.
   b.
   c.
   d.

4. List five reasons many employees have a difficult time getting and holding a job.
   a.
   b.
   c.
   d.
   e.

5. Give three reasons split or staggered shifts are sometimes necessary.
   a.
   b.
   c.

6. Explain why it is important that dietary department schedules be met.

7. List three things the food service employee can do to stay healthy.
   a.
   b.
   c.

8. Explain when a food service employee should not go to work.

9. List four requirements hospitals and nursing homes must meet to be qualified for Medicare patients.
   a.
   b.
   c.
   d.

10. List five qualities needed by persons interested in the food service or dietary field.
   a.
   b.
   c.
   d.
   e.

ASSIGNMENT:

I. From the check list in Unit I-3, select the questions which you answered "Seldom." Develop a plan, with suggestions from your teacher, for improving yourself in these areas. Make a progress report to show any improvement you have made in your work habits and attitudes.

GROUP WORK:

I. List the policies of your training station regarding dress, absences, vacations, and employee benefits. Compare the policies of your training station with those of training stations where other students are employed.

II. Write a code of ethics which would apply specifically to your food service or dietary job. Compare this code with those produced by others in the class for their jobs. Discuss the reasons for the similarities and differences in the codes.

III. Invite several employers to participate on a panel to discuss job ethics, attitudes, and communications. This could be used as a program for an FHA/HERO meeting.

IV. While visiting local restaurants on your own time, observe the attitudes, actions, and communication skills of employees. Work with other food service or dietary employees to compile information and prepare a chart listing the traits which would enable an employee to be promoted or demoted on the job. (Project can be used as bulletin board or classroom display.)

UNIT I-3

WHO ARE FOOD SERVICE EMPLOYEES?

SUBJECT: Self-Evaluation

TASK: 2. Help to evaluate own progress in meeting job responsibilities.

OBJECTIVES: When you finish this lesson, you should be able to

a. evaluate yourself in terms of qualities which contribute to success as a food service or dietary employee
b. summarize ways to improve work habits and attitudes.

The dietary and food service employee has the responsibility of developing good work habits in order to be successful. Employers have certain standards by which the job performance of their staffs are judged. As a food service or dietary employee, you should take an objective look at yourself in order to discover what you have to offer as an employee.

The check list below will aid you in determining what kind of employee you are. It will be useful to you in self-evaluation only if you answer the questions honestly. Complete the check list, then use it as a basis for self-improvement.

SELF-EVALUATION CHECK LIST FOR FOOD SERVICE AND DIETARY EMPLOYEES

Directions: Read each question carefully. Place a check in the column which most describes your behavior as a food service or dietary employee.

CHARACTERISTICS	MOST OF THE TIME	SOME-TIMES	SELDOM
1. *Appearance* Do you start the day with a smile?			
Do you check your appearance before going to work?			
Do you check your clothing for rips, missing buttons, and sagging hems?			
Do you wear appropriate undergarments?			
Is your skirt or pants length appropriate?			
Does your clothing fit properly without being too tight or too loose?			
Is your hair clean and neatly arranged?			
Do you wear a hair net or cap when on duty?			

CHARACTERISTICS	MOST OF THE TIME	SOME-TIMES	SELDOM
Appearance (cont.) Females, is your makeup correctly applied in moderation on a clean face, not over old makeup?			
Are you clean shaven? (Males, is your beard or mustache, if you wear one, neatly trimmed?)			
Do you refrain from wearing jewelry, except for a watch and wedding rings?			
Are your teeth clean and is your breath fresh?			
Are your hands clean and your nails neatly manicured?			
Do you use an effective deodorant?			
Do you refrain from using excessive cologne?			
Are your shoes sensible, clean, and in good repair?			
Do you maintain proper posture when standing or walking?			
2. *Health and Sanitation* Are you in good physical health?			
Do you eat properly and get plenty of rest?			
Do you watch your weight?			
Do you observe good sanitary practices?			
Do you avoid the excessive use of controlled substances, including alcohol?			
3. *Communication* Do you speak in a pleasant manner and moderate tone?			
Do you have a reasonable command of the English language?			
Do you use good telephone manners?			
Do you take accurate messages?			
Do you listen carefully?			

CHARACTERISTICS	MOST OF THE TIME	SOME-TIMES	SELDOM
4. *Cooperation* Do you observe and obey the rules and policies of the food service operation?			
Are you willing to do whatever job is assigned to you?			
Are you willing to do jobs or routine tasks not originally assigned to you?			
Can you make adjustments to changes and unexpected situations?			
Do you cooperate with your co-workers? Your supervisor?			
Have you gained the friendship and respect of those with whom you work?			
Do you respect the authority of those for whom you work?			
Are you willing to try to work with someone in spite of a personality conflict?			
5. *Courtesy* Are you pleasant while working?			
Are you always courteous, polite, and patient with fellow employees and your supervisor?			
Are you courteous, polite, and patient to customers, students, or patients?			
Do you respect the desires, interests, and opinions of others?			
6. *Dependability* Do you get to work on time?			
Do you miss work only when you are ill?			
Can you work without constant supervision?			
Do you stay at your assigned work station?			
Do you pay attention to instructions and carry them out accurately?			
Can your supervisor depend on you for high quality work?			
Can your employer depend on you to maintain high standards while doing repetitious work?			
Are you able to work under pressure without becoming nervous, irritable, or inefficient?			
Can your employer depend on your loyalty and honesty?			

CHARACTERISTICS	MOST OF THE TIME	SOME-TIMES	SELDOM
7. *Self-control* Are you loyal to your employer and place of employment?			
Can you accept criticism and remain friendly?			
Do you keep your temper under control?			
Do you avoid talking back to the boss?			
8. *Work Habits* Does your work meet the standards of the food service operation where you are employed?			
Do you work in a neat and orderly manner?			
Can you work without becoming bored or distracted?			
Are you careful, not wasteful, in the use of food, supplies, and materials?			
Do you handle and use equipment carefully?			
Do you willingly accept and practice new or more efficient techniques?			
Are you prompt and efficient?			
Do you avoid wasting time?			
9. *Accuracy* Do you follow directions exactly?			
Do you complete jobs assigned to you?			
Do you complete jobs on time?			
10. *Initiative* Do you feel responsible for completing tasks assigned to you?			
Do you ask questions when you are not sure what is expected of you?			
Are you able to see what needs to be done without being told?			
Do you show leadership when you are in charge without being "bossy"?			
Do you use criticism as a basis for self-improvement?			

If many of your answers were "most of the time" with only a few answers "sometimes" or "seldom," you are on your way to success. On the other hand, if many answers were "sometimes" or "seldom," you need to begin a serious self-improvement campaign. An honest look at yourself and a desire to improve will lead to success in the working world. In addition to the use of the check list as a means of self-evaluation, you might wish to utilize the following "Short Course in Human Relations" as suggested by Southwestern Bell Telephone Company:

The six most important words:
"I admit I made a mistake."

The five most important words:
"You did a good job."

The four most important words:
"What is your opinion?"

The three most important words:
"If you please."

The two most important words:
"Thank you."

The one most important word:
"We"

The least important word:
"I"

QUESTIONS:

1. Name two attitudes which lead to success in the working world.
   a.
   b.

2. Name five areas in which employees can evaluate their own progress in meeting job responsibilities.
   a.
   b.
   c.
   d.
   e.

ASSIGNMENTS:

I. Select at least two or three areas in which you placed your check in the "Sometimes" or "Seldom" columns when you went through the check list in this unit. Work out a plan for changing these attitudes or traits. Follow through with your self-improvement campaign. An employer always appreciates willingness to improve. Turn your plan in to your teacher. Occasionally, discuss with your teacher the progress you are making. [NOTE: The assignment could be used as a basis for Encounter Level I.]

II. Picture yourself first in your own job, then in your supervisor's job. When you have these pictured in your mind, write two paragraphs, one describing the qualities you would most admire in an employee with your job, and another describing qualities you most admire in a supervisor. Turn the paragraphs in to your teacher when you have completed both of them.

GROUP WORK:

I. Prepare a "question box" for questions relating to good work habits that lead to success on the job. Give classmates the opportunity to place questions in the box. Draw out questions for class discussion.

UNIT II-1

SANITATION

SUBJECT:	Food Contamination and Food-Borne Illnesses
TASK:	3. Handle food, beverages, equipment, utensils, and table settings in ways to prevent contamination.
OBJECTIVES:	When you finish this lesson, you should be able to a. identify ways disease may be spread through careless handling of food and equipment b. analyze situations in which sanitation procedures have been violated c. evaluate your own personal habits of cleanliness in relation to accepted sanitation procedures d. maintain cleanliness in order to eliminate or control common pests e. identify unsafe food.
REFERENCE:	Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A Bennett Co., Inc., 1979. pp. 278-280; 282-289.

At least one million persons in the United States suffer from food-borne illnesses each year. These illnesses occur when the people responsible for the preparation and serving of food do not observe safe and sanitary methods of food handling.

Contamination of food can be: (1) chemical, (2) physical, (3) animal, or (4) microbiological, which means forms of life too small for the eye to see, like bacteria. Food-borne diseases or illnesses result when contaminated food or drink is taken into the body. These illnesses fall into two main categories: food infections and food poisoning (sometimes referred to as ptomaine poisoning).

Food infections are caused by eating foods containing harmful bacteria. The food acts as a carrier for the bacteria. The bacteria multiply in the body of the individual and produce a food-borne illness. *Salmonella* and *Streptococcus* (strep) are two kinds of bacteria transmitted in foods. When eaten, these bacteria produce a food infection.

Food poisoning results from eating foods in which bacteria have grown and developed a toxin or poison. *Staphylococcus* (staph) and *Clostridium botulinum* are two kinds of bacteria that produce in food a poison or toxin which results in food poisoning.

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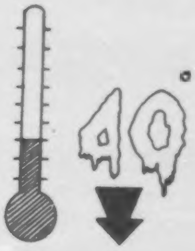
For these bacteria to grow and multiply, certain conditions must exist. Most bacteria need: (1) food, (2) moisture, (3) warm temperatures, (4) darkness, and (5) oxygen. *Botulinum* is an exception because it lives without oxygen. If the conditions are right, the bacteria will grow and multiply quite rapidly. The growing process of germs can be stopped by: (1) cleanliness, (2) use of extreme hot or cold temperatures, (3) absence of food, (4) chemicals which kill bacteria, or (5) absence of moisture.

Food-borne disease prevention is essential. Food service employees need to know how to prevent food-borne illnesses. In addition, they must want to prevent the occurrence of these illnesses. The employees must be alert, cautious, and conscientious as they carry out their responsibilities in handling and serving food. General guidelines for employees in preventing food poisoning are:

1. Do *not* handle food if you have sores, rashes, boils, or cuts.
2. Keep perishable foods refrigerated (45° F. or 5° C. or lower) at all times.
3. Reheat leftovers, especially meats and stuffings, to 165° F. (74° C.).
4. Keep foods such as pork, poultry, ground meats, and casseroles hot (above 140° F. or 60° C.).
5. To cool hot foods, place in shallow pans and refrigerate immediately.
6. Do not allow acid foods or beverages to be stored in zinc (galvanized) or cadmium-coated metalware.
7. Do not use cyanide silver polish.
8. Keep insect powders locked in a safe place.

Four basic rules can be used as guidelines in handling, serving, and storing food.

I. *Keep Food Cold.*



Low temperatures do not kill food-poisoning bacteria, but they can slow or stop their growth. Temperatures of 40° F. (4° C.) or below are necessary to reduce the growth of bacteria. Freezing stops the growth of bacteria, but does not kill them.

Refrigerate all perishable foods (40° F. or 4° C. or lower) as soon as possible after their delivery. Refrigerate immediately after preparation food products such as salads, cream-filled desserts, custards, poultry, ham, turkey, milk, and food products containing moist carbohydrates or proteins. Allowing these foods to stand at room temperature gives bacteria a chance to grow rapidly. Fresh meats, poultry, and fish should be stored at 34° - 38° F. (1° - 2° C.) to prevent bacterial growth. All fresh meat should be stamped with the federal or state inspection stamp assuring the consumer that the meat is free from disease.

Dairy products should be stored at a temperature below 40° F. (4° C.). Milk cartons should not be opened until ready for use, and milk should be kept refrigerated when not being used. If you store dairy products in bulk form, use sanitary practices in dipping ice cream, and opening and closing dispensers.

Refrigerate leftovers as soon as possible. Label all leftovers as to the contents of containers and the date stored. It is not advisable to keep leftovers more than 24 hours. Warm leftovers quickly, but do not mix them with fresh food. Food that has been held at room temperature for several hours should not be considered safe and cannot be made so by refrigeration.

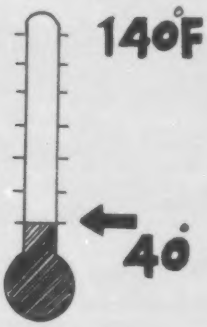
The use of shallow pans, about 4 inches deep, for refrigeration of large amounts of food allows the food to cool more rapidly than it would in deep containers. This rapid cooling allows less time for the growth of bacteria to occur. Stirring the food during cooling helps also to reduce the length of the cooling time.

When storing leftovers, some people have the misconception that food should be allowed to stand at room temperature for several hours. The belief is that putting food while it is still warm into the refrigerator will cause it to "spoil." This practice was common in years past when ice was used to keep food cold. Placing hot foods in the "icebox" caused the ice to melt. Refrigerating hot foods does not cause spoilage unless the cooling unit is overloaded. Then the temperature in the refrigerator is raised to a level where spoilage starts. If a large amount of hot food needs to be refrigerated, cool it partially by placing the pans of food in cold water before putting them in the refrigerator. Store all foods in covered containers. Allow space for air circulation to prevent mold.

II. *Keep Food Hot.* The danger zone for the growth of bacteria is between 40° and 140° F. (4° and 60° C.) For this reason, hold hot foods at temperatures of at least 140° F. (60° C. or above).

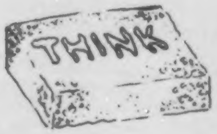
Thoroughly cook foods such as pork, poultry, eggs, ground meats, and dehydrated food products to destroy certain types of bacteria. The center of the food should reach temperatures of 165° to 170° F. (74° to 77° C.). Food quality is best when food is kept at temperatures between 150° and 160° F. (71° to 73° C.).

III. *Keep Food In Danger Zone Only A Short Time.* Do not hold foods at temperatures between 40° and 140° F. (4° and 60° C.) for more than four hours. This means four hours total; *i.e.,* one hour in the morning, one hour another time, and two hours a third time add up to the four hour limit.

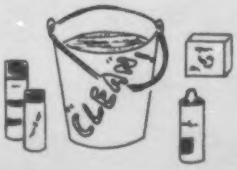


Certain foods are more likely to be contaminated at these in-between temperatures than others. Do not hold poultry dressings at these temperatures for more than four hours. Refrigerate leftover poultry meat, dressing, and gravy immediately. Sandwich fillings, salads, and cooked hams are examples of other foods which should not stand at room temperature more than four hours. Defrost all frozen meats and foods in the refrigerator, not on the counter top.

IV. *Keep Food Clean.* One way to keep food clean is to use clean equipment. Three tips for general cleaning of equipment are:



1. Thoroughly clean all kitchen equipment used in the preparation or serving of food after each use.
2. Thoroughly clean and sanitize all utensils used in the preparation and service of food after each use.
3. Handle and store clean equipment properly to prevent contamination. Store clean dishes in closed storage, or place upside down on wire racks. Store flatware with handles all turned the same way so that they can be handled without touching the parts placed in the mouth.



A second way to keep food clean is by proper storage of foods. The following guidelines should be followed:

1. Store food on shelves, tables, or racks which are off the floor. Dry foods should be stored in tightly covered, nonabsorbent containers.
2. Never store food under sewer pipes because of possible leakage.
3. Never store food in the same storage area used for poisons.
4. Use caution when storing food in a basement because of flooding.
5. Store food in locations free of dust, insects, and rodents.
6. Store food to provide protection from coughing, sneezing, and unnecessary handling.

Foods may be contaminated by:

1. chemicals;
2. physical matter, such as dirt or dust;
3. animals; or
4. microbiological organisms, such as bacteria.

Food may be infected by:

1. a person who sneezes or coughs.
2. hands that have not been washed properly. (Wash at least once an hour to be safe.)
3. fingernails which have not been cleaned properly.
4. the use of hands instead of the proper utensil.
5. dishes, sinks, and equipment which are not sanitized properly.
6. employees who are ill.
7. persons with cuts or infections on their hands.
8. leakage of overhead sewage lines or unsanitary bathroom conditions.
9. certain chemicals.
10. hair that is not covered.
11. dust on equipment, floors, and counters.
12. plants.
13. contaminated rags and sponges.
14. failure to refrigerate properly potentially hazardous foods.

The basic rules for food sanitation can be shortened into four clues to remember when handling food. To grow well, bacteria require:

1. temperature – The danger zone is between 40° F. (4° C.) and 140° F. (60° C.). Keep food above or below those temperatures.
2. moisture – Even a cracker has moisture, so consider no food safe from bacteria contamination.
3. food – Any food will do, but bacteria thrive especially on protein and protein mixtures.
4. time – Foods should not be kept at room temperature more than 4 hours. Bacteria infection sets in after this time. Any time the food is between 40° F. (4° C.) and 140° F. (60° C.), it is at room temperature. Foods are at room temperature during preparation, serving, reheating, and times required to cool the food in the refrigerator. The 4 hours includes *all* the time any food is at room temperature; it does *not* mean the food can be left at room temperature for 4 hours at a time.

FOOD-BORNE ILLNESSES

Name of Illness and Its Symptoms	*Causative Agent*	*Foods Usually Involved*
Staphylococcus (staph) Disease: Food Infections (Vomiting, cramps, abdominal pain, diarrhea, headache, nausea. Sometimes accompanied by fever)	Staphylococcus enterotoxin (a poison developed by staphylococcus when it grows in food)	Cooked hams or other meat; chopped or pulverized food; cream-filled or custard pastries; dairy products; Hollandaise sauce; bread pudding; potato salad; chicken, fish, and other meat salads; "warmed-over" food.
Salmonellosis Disease: Food Infections (Fever, headache, exhaustion, nausea, vomiting, cramps, diarrhea)	Over 800 types of Salmonella bacteria; capable of producing gastrointestinal illness	Moist foods; prepared or unheated foods, such as custard-filled pastries, cream pies, egg or potato salads; dairy products; shellfish; meat; poultry; "warmed-over" food.
Streptococcus (strep) Disease: Scarlet Fever, Septic Sore Throat (Inflammation of the nose, throat, and mouth; red rash)	Streptococci bacteria	Foods contaminated with nasal or oral discharges from person who has illness or is carrier. Foods contaminated with body waste on unclean hands.
Clostridium botulinum Disease: Botulism (Nervous symptoms, double vision, weakness and paralysis of muscles. Inhibition of body secretions, inability to swallow, constipation. Most likely to be fatal.)	Toxins of Clostridium botulinum	Improperly processed, (usually home-canned) foods of low acidity.
Shigellosis Disease: Bacillary Dysentery (Bloody diarrhea, nausea, exhaustion)	Shigella bacteria	Foods contaminated with body wastes or unclean hands.
Trichinella spiralis Disease: Trichinosis (Nausea, abdominal pain, diarrhea, muscular pain, chest pain, fever. Can be fatal.)	Larvae of Trichinella spiralis	Raw or insufficiently cooked pork or pork products.

FOOD-BORNE ILLNESSES

How Introduced Into Foods	*Preventive or Corrective Procedures*
Staphylococcus: Usually by food handlers through nasal discharges or pus in local skin infections (acne, pimples, boils, scratches, and cuts).	Handle food only when you are free from respiratory illnesses and infections. Practice sanitary work habits; wash hands frequently. Handle food with utensils, not hands. Keep cold food cold, hot food hot. Cool food rapidly to safe temperatures.
Salmonellosis: Intestines of humans, birds and animals; sometimes carried by a healthy person; raw contaminated meat and poultry, eggs, and unpasteurized milk.	Use inspected or certified meat products. Control rodents and insects. Wash hands frequently. Keep surfaces, equipment, and utensils sanitary. Keep cold food cold, hot food hot. Cool food rapidly to safe temperatures.
Streptococcus: Coughing, sneezing, unsanitary food handling.	Use separate work surfaces for raw and cooked meats. Wash hands after handling raw meats, toileting, or touching soiled articles. Keep kitchen free of dust. Clean meat-cutting utensils after use. Keep food at safe temperatures.
Clostridium botulinum: Soil and dirt. Bacteria not killed in inadequately heated foods.	Use commercially canned foods. Store canned foods in cool room for only one year. Inspect cans before opening for bulges, damage, rust, leaks. Discard contents if they spurt out on opening the can, look bubbly, are off-odor or off-color. Store smoked fish at 38° F. (3° C.) or below. *Never* taste suspected food; boil it for 15 minutes and *discard*, in order to prevent spread of bacteria.
Shigellosis: Unsanitary food handling.	Persons who are ill or carriers must not be allowed in food preparation and service area. Use pure water. Use leakproof sewer pipes and proper sewage disposal. Control flies and rodents.
Trichinella spiralis: Raw pork from hogs which were fed uncooked, infected garbage.	Use inspected pork and pork products. Serve pork (including sausage) well-done. Cook roasts until center temperature is 165° F. (74° C.), preferably 179° F. (82° C.). Cook pork until meat turns gray.

Never use the contents from a can that bulges, leaks, or is dented at the seam. Never use a can if the contents foam, have an off-color, or contain a milky liquid.

SANITATION PRACTICES IN CATERING SERVICES

Catering services must abide by many of the same standards and guidelines as restaurants. The state board of health requires regular inspection and permits to operate for mobile catering units. Employees must be very cautious in packing, transporting, and maintaining proper temperatures for foods. Foods are transported in sealed containers which are heated or refrigerated, or in the original package from the processing plant.

If you are employed by a catering service, you must be aware of your responsibilities in transporting food at all times. The following guidelines should help you meet transporting standards:

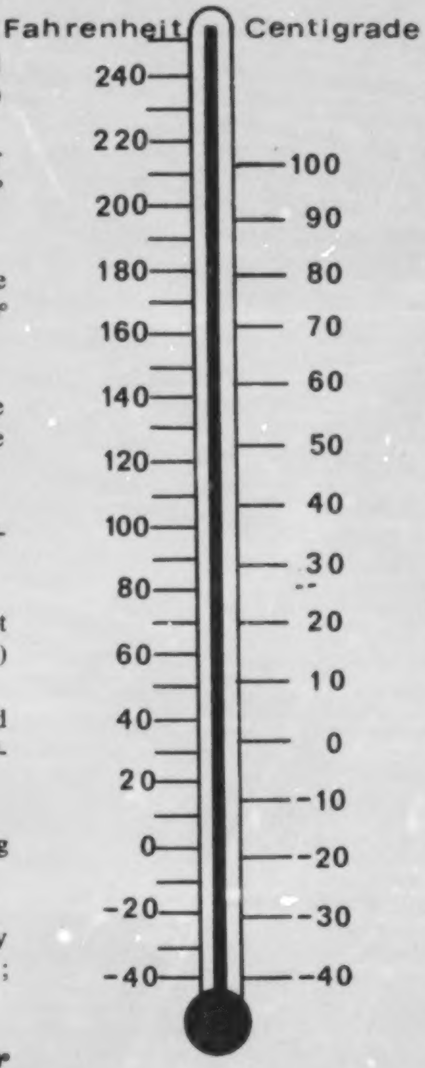
1. Packaged and paper goods should be rotated so oldest stock is used first.
2. 40° F. to 140° F. (4° to 60° C.) is the danger zone for food poisoning.
3. Transport cold foods at 40° F. (4° C.) or below.
4. Transport hot foods at 140° F. (60° C.) or above.
5. Take extra precautions during hot weather.
6. Don't expect winter weather to replace refrigeration.
7. Deliver foods first, nonperishable items last.
8. Do not pack sandwiches tightly in containers. Cool air should circulate around them.
9. Prechill perishable products and return to refrigeration after packing.
10. Clean inside and outside of food carriers frequently with soap, hot water, or chlorinated detergents.

SANITARY PRACTICES IN HEALTH CARE FACILITIES

Special Precautions for Isolated Patients. In a hospital or nursing home, the nursing service may have a special plan for patients in isolation. Health care facilities may use disposable tableware rather than standard dishes and flatware. If nondisposable containers are used for salt, pepper, or sugar, keep them in the patient's room during the entire isolation period. Immediately destroy leftover food used by an isolated patient to avoid further contamination of patients and dietary employees. Destroy disposable dishes; sanitize others separately.

TEMPERATURES FOR KEEPING FOOD SAFE

The illustration below shows the temperatures for keeping food safe.



Bacterial control in low-acid foods (240° F.; 116° C.)

Maximum temperature for mechanical rinse (190° F.; 88° C.)

Mechanical rinse for nozzle and dish sanitation (168-180° F.: 75.5-82.2° C.)

Minimum rinse temperature for mechanical or dip rinse (170-180° F.; 77-82° C.)

Machine dishwashing (140-160° F.; 60-71° C.)

Holding temperature for hot foods (140° F.; 62.8° C.)

Water temperature for hand dishwashing (120-140° F.; 49-60° C.)

Temperature for scraping dishes (110° F.; 43° C.)

Refrigerate foods rapidly through this range (60-150° F.; 15.5-65.5° C.)

Some bacterial growth (40-60° F.; 4.5-15.5° C.)

Slow bacterial growth (30-40° F.; 1.1-4.5° C.)

Frozen food storage but not for freezing food (0° F.; -18.8° C. or less)

Staphylococcus toxin resistant to boiling (212° F.; 100° C.)

Botulism toxin inactivated by boiling 20 minutes (212° F.; 100° C.)

Most harmful bacteria killed in food (165° F.; 72° C.)

Minimum safe temperature of cooked food to kill bacteria (150° F.; 65° C.)

DANGER ZONE FOR FOOD (40-140° F.; 4.4-60° C.)

Rapid bacterial growth in handling and storage (60-120° F.; 15.5-48.9° C.)

Body temperature (98.6° F.; 35.9° C.)

Normal room temperature (70-100° F.; 20-35° C.)

Rapid bacterial growth in food (60-120° F.; 15.5-48.9° C.)

Holding temperature for cold foods (34-40° F.; 1.1-4.5° C.)

Quick Freeze (-10° F.; -23.3° C. and below)

SANITATION PRACTICES IN FOOD HANDLING

Not only are food-borne illnesses transmitted to foods, but some communicable diseases are spread by food. Examples of these are respiratory, intestinal, and skin diseases. All of these diseases may be transmitted by infected employees. The general sanitation rules listed below are good habits to form to protect the health of both food service employees and those they serve.

1. Wash hands before handling food, after using the toilet, after using handkerchiefs, after handling garbage or poisons, and after handling dirty dishes.

   Never lick fingers or thumbs when preparing and serving foods.

   Avoid putting hands on face, nose, or hair.

   Keep fingernails clipped and clean.

2. Always wear a hair net or cap when working in the food service area to keep hair away from food.

   Avoid putting fingers in hair.

3. Avoid wearing soiled aprons and outer garments.

4. Do not chew gum or smoke near the food preparation and service area.

   Do not cough or sneeze near food or dishes.

   Use disposable tissues and throw away immediately.

   Treat and report sores, rashes, boils, or other skin eruptions.

5. Touch only the handles of forks, knives, and spoons used in preparing foods, serving patient trays, or setting tables for dining room service.

6. Handle bowls, glassware, and cups properly.
   a. Do not touch the rims of glassware and cups.
   b. Do not put fingers inside mixing bowls, plates, and saucers.

7. Use tongs for:
   a. placing ice in glasses or pitchers.
   b. serving pastry, rolls, or doughnuts.

8. Always keep utensils used for serving salads and sandwich fillers in the original containers, and never exchange with utensils used for serving other foods.

9. Keep ice cream dippers in cold running water when not in use.

10. Report suspected food-borne illnesses to supervisor or manager who can contact the local health department.

11. Depending on your job situation, you may be required to have a tuberculosis test to ensure the protection of customers and fellow employees from the spread of disease.

QUESTIONS:

1. What is meant by food-borne illnesses?

2. What temperatures are safe for the following types of food?
   a. Hot foods
   b. Cold foods
   c. Frozen foods

3. What are the two main categories of food-borne illnesses?
   a.
   b.

4. List ten ways food service workers can help prevent food-borne illnesses.
   a.
   b.
   c.
   d.
   e.
   f.
   g.
   h.
   i.
   j.

5. List five ways food-borne illnesses may be introduced into foods.
   a.
   b.
   c.
   d.
   e.

6. List four types of food contamination.
   a.
   b.
   c.
   d.

7. Which of the food-borne diseases is most likely to be fatal?

8. List five conditions that must exist for bacteria to grow.
   a.
   b.
   c.
   d.
   e.

9. List five conditions essential to stop bacterial growth.
   a.
   b.
   c.
   d.
   e.

10. List four locations where you should either not store, or use caution in storing food.
   a.
   b.
   c.
   d.

11. Briefly discuss how dry foods should be stored to prevent contamination.

12. Why should hair nets or caps be worn by food service employees?

13. A chicken noodle casserole was prepared in the morning; it was left in the oven, which was turned off until late afternoon. Then it was warmed and served. Why was this not a wise procedure? What should have been done?

14. Sally made some ham salad and turkey salad sandwiches and put them in the refrigerator until serving time. Was this necessary? Why?

15. Ten gallons of stew was prepared for use the next day. It was allowed to cool at room temperature for several hours and then placed in the refrigerator in the 10 gallon container. What two mistakes were made in this situation?
   a.
   b.

16. Jim cut his finger, and it became slightly swollen. However, he did not say anything to his supervisor when his supervisor told him to remove some chicken from the bones. Which germ that causes a food-borne illness might Jim have spread to customers through his infected cut?

In Items 17-25, write the word or words needed to complete each sentence in the blanks provided.

17. Foods should be transported in ______________________ containers which are kept hot or refrigerated or in the ______________________ packages in which the food came from the processing plant.

18. The temperature range in which bacteria grow most rapidly is called the ____________ ____________

19. A word used to describe bacteria is ______________________.

20. Bacteria which cause disease are called ______________________.

21. The types of food most commonly contaminated by bacteria are those rich in ______________________ and ______________________.

22. The regulatory agency which requires regular inspections and permits to operate for mobile catering units is the ______________________________.

23. The type of tableware often used in hospitals and nursing homes for patients in isolation is ______________________.

24. When working in the food service area, an employee should keep hair away from food by wearing a cap or ______________________.

25. To prevent bacterial growth while ice cream dippers are not in use, they should be kept in ______________________________.

26. Place an X in the blank beside each item which can cause food to be infected:

_____ loose hair

_____ hot foods kept at 160° F. (73° C.)

_____ dirty hands and fingernails

_____ employees who are sick

_____ food refrigerated at 40° F. (4° C.)

_____ sanitized dishes

_____ chemicals

_____ ice cream dippers kept in warm water after serving

_____ smoking during food preparation

_____ tasting food with hands during preparation

_____ improper handling of glassware

_____ plants

_____ leaving food at room temperature until serving time

_____ wearing soiled aprons

_____ coughing or sneezing during food preparation

_____ serving food without gloves

_____ handling food with sore on skin

_____ keeping salad scoops in original containers

_____ using clean dishrags in wiping off counter tops

_____ sanitizing sinks and equipment

In Items 27-34, place an X beside that food item which is *most* likely to be involved in an outbreak of food-borne illness.

27. _____ Quick oats
_____ Turkey salad

28. _____ Canned green beans
_____ Canned tomatoes

29. _____ Custard
_____ Jello

30. _____ Pork sausage
_____ Corned beef

31. _____ Apple pie
_____ Coconut cream pie

32. _____ Tuna salad
_____ Tossed salad

33. _____ Freshly cooked food
_____ Reheated leftovers

34. _____ Scrambled eggs
_____ Deviled eggs

In Items 35-50, write T if the statement is *true*, and F if the statement is *false* in the blank to the left of each statement.

_____35. Food can be handled safely by an employee who has a cut on the hand, providing the cut is bandaged.
_____36. Perishable foods should be kept at room temperature.

_____37. It is safe to serve leftover turkey and dressing directly from the refrigerator.

_____38. Foods such as pork, poultry, and casseroles should remain at room temperature.

_____39. Hot foods should be cooled in shallow pans and refrigerated immediately.

_____40. Do not store grapefruit juice in a zinc-coated container.

_____41. Freezing completely kills the bacteria in foods.

_____42. It is not necessary for meats to have a federal inspection stamp.

_____43. Milk should be stored in open containers in the refrigerator.

_____44. If foods are stored too closely in a refrigerator, mold tends to grow.

______45. The quality of hot foods is best if kept at 140° F. (60° C.).

______46. Few cases of food poisoning or infections occur in the United States.

______47. Smoking is allowed where food is being prepared.

______48. Packaged and paper goods should be rotated so the oldest stock is used first.

______49. Bacteria grow the fastest in the temperature range 30° F. to 150° F. (-1° to 71° C.).

______50. Communicable diseases are transmitted by food.

ASSIGNMENTS:

I. Read articles on sanitation and food-borne illnesses in food service publications. Make a class report on your findings.

II. Interview your supervisor, manager, or a health department official to learn what types of problems are faced by food services in maintaining sanitary conditions and preventing food-borne illnesses.

GROUP WORK:

I. Prepare agar plates to show the growth of bacteria resulting from lack of personal cleanliness. Cough or sneeze on different agar plates. Touch one agar plate with dirty hands and another agar plate with clean hands. Place a hair on an agar plate. Let a cockroach walk on an agar plate. *Incubate* the agar plates (keep the plates warm) so the bacteria will reproduce rapidly. Borrow a microscope from the science department to view the bacteria. View the plates the day they are prepared, in 24 hours, and several days later.

II. View a film on safe food handling to learn the causes of food-borne illnesses, the kinds of bacteria that cause them, and the conditions needed for bacterial growth.

UNIT II-2

SANITATION

SUBJECT: Cleaning versus Sanitizing

TASK: 3. Handle food, beverages, equipment, utensils, and table settings in ways to prevent contamination.

OBJECTIVES: When you finish this lesson, you should be able to
a. define the role of cleanliness in sanitation
b. describe the procedures for cleaning and sanitizing equipment.

ESTABLISHING A SANITATION PROGRAM

"Sanitation is a way of life." This statement by the National Sanitation Foundation means that sanitation is the quality of living that is expressed in the clean home, the clean farm, the clean business and industry, the clean neighborhood, and the clean community.

Sanitary conditions are of utmost importance to any establishment dealing with food preparation and service. Customers and patients expect cleanliness and sanitation. All food service personnel of the food service establishment must work to ensure the satisfaction of customers and patients. The management provides facilities, equipment, and materials for developing a program of cleaning and sanitizing and must see that the program is followed. Employees must carry out the program.

Four goals of sanitation are:

1. to prevent disease.
2. to prevent food poisoning.
3. to prevent food spoilage.
4. to prevent off-odors or off-flavors from developing in food or from being transferred to food.

Cleaning and sanitizing duties are performed on a daily, weekly, and occasional basis. Employees are responsible for the day-to-day cleanliness of their work station and themselves. Weekly chores, such as polishing floors or cleaning refrigerator racks, should be scheduled for specific days and be definite assignments for which an employee is responsible. Even those chores done on an occasional basis should have a definite assignment. Occasional tasks include cleaning grease traps, removing lint and dirt from ventilators, and washing windows. When there is a slack in immediate work, occasional tasks can be done by any available employee.

Cleaning is necessary to keep equipment operating properly. Inadequate care of equipment causes higher operation and repair costs. The quality of food suffers from improper or inadequate cleaning of equipment. Off-flavors can develop in foods prepared with poorly cleaned equipment. For example, coffee can absorb a bitter taste from the oily substances left in a poorly cleaned urn.

Bacteria cause diseases. Even the tiniest spot of food left on equipment allows bacteria to grow. Some types of bacteria travel by air, so store equipment in an enclosed area, or place it upside down. Use covers on leftover food to prevent spilling and to retain flavors. Good cleaning practices discourage disease-carrying pests from inhabiting an area.

Because bacteria are all around you, keeping yourself clean is also very important. Germs are on your body, hands, hair, clothes, and face. Daily baths, clean uniforms and undergarments, regular shampoos, clean hands, and clean, manicured nails can help to keep germs from spreading to food. Employees should wash their hands before beginning work, and after washing dishes, sweeping floors, toileting, handling food, coughing, sneezing, smoking, or handling raw meat. Good grooming and personal hygiene not only aid in controlling the growth of bacteria but make a favorable impression on customers and patients.

CLEANING AND SANITIZING

The words *clean* and *sanitary* are used frequently in food service industries and health care establishments. Clean means absence of soil. Sanitary means absence of bacteria, molds, fungi, or yeast. Cleaning and sanitizing are methods used to keep utensils and equipment free from soil and bacteria. Something may look clean but not be sanitary. This is why extra caution is called for.

When cleaning, use these three elements: (1) water, (2) friction, and (3) a wetting agent, such as a soap or detergent.

When sanitizing, use chemicals or temperature. Some chemicals are safe for use around food. Other chemicals are dangerous and should be used only in areas where food is not present, such as on floors, or in restrooms. Bacteria cannot live in high temperatures. Boiling an article for ten minutes is an effective means of sterilization. Sterilization destroys all bacteria.

Be careful not to recontaminate equipment by improper handling after it has been sterilized. Place dishes in racks for washing, then store in the same racks without touching the dishes themselves. After sanitizing, grasp flatware and utensils by the handle only. To further assure sanitary practices, store dishes in clean shelves or cabinets two and one-half feet above the floor. Utensils should be stored in clean compartments with all handles at one end.

QUESTIONS:

1. Explain the statement: "Sanitation is a way of life."

2. The four sanitation goals are:
   a.
   b.
   c.
   d.

3. What are three results of failure to clean equipment properly?
   a.
   b.
   c.

4. Two safeguards against airborne types of contamination are:
   a.
   b.

5. What is the difference between cleaning and sanitizing?

6. What two methods may be used for sanitizing?
   a.
   b.

7. Why is it a good idea for food supervisors to set up a program for cleaning and sanitizing?

8. Why is it important for employees to practice good grooming and personal hygiene?

In Items 9-12, place the word or words which correctly complete the statement in the blank(s) provided.

9. In quantity food preparation, for health and safety, precautions must be taken to ensure that the food is nutritious, ____________, and ____________.

10. In any food service establishment, the standards of sanitation and ____________ should be emphasized as much as the standards of quality and cost.

11. Disease and poison transferred by food to human beings are largely caused by ____________.

12. The three elements necessary for cleaning are ____________, ____________, and ____________.

In Items 13-16, decide whether each statement is true or false. Place a *T* in the blank if the statement is *true; F* if it is *false*.

_____13. Only a few food service and dietary employees are responsible for observing high standards of cleanliness and maintenance.

_____14. A clean utensil is always sanitary.

_____15. Knives, forks, spoons, whips, spatulas, and similar equipment may be picked up by either end if one's hands are clean.

_____16. Sterilization destroys most bacteria.

ASSIGNMENT:

I. Outline the procedures for cleaning and sanitizing equipment at your training station. List your specific duties for carrying out the sanitation program.

GROUP WORK:

I. Compare the procedures for cleaning and sanitizing equipment at your training station with procedures used at other training stations. Discuss the difference between cleaning and sanitizing.

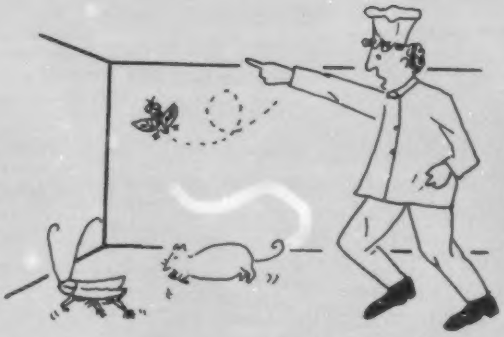
II. View a film which demonstrates both sanitary and unsanitary methods of handling food and utensils.

III. Visit a food service establishment (restaurant, cafeteria, fast-food service, hospital, nursing home, school cafeteria, or caterer) and observe their cleaning and sanitizing equipment. Ask the manager or supervisor about their system and rules for cleaning equipment. Share your findings with other students.

UNIT II-3

SANITATION

SUBJECT: Pest Prevention



TASK:
3. Handle food, beverages, equipment, utensils, and table settings in ways to prevent contamination.
4. Report signs of pests in the food service establishment.

OBJECTIVES: When you finish this lesson, you should be able to
- a. identify common pests that are dangerous carriers of harmful bacteria
- b. explain control methods for eliminating pests from storage and food service areas.

REFERENCE: Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illiois: Chas. A. Bennett Co., Inc., 1979. pp. 280-281.

The standard of living in the United States is one of the highest in the world. We expect to be served good, wholesome food in a clean, pleasant atmosphere. Nothing is less appetizing than a fly circling over a dining table, a roach crawling up a wall, or a mouse darting across the floor. Pests carry diseases. Any establishment handling food must take measures to eliminate such pests.

The most common pests in food service establishments are roaches, flies, ants, and rodents, such as rats and mice.

INSECT PESTS

Roaches–Roaches are familiar to nearly everyone, especially in Texas's warm climate. There are many varieties of roaches, but in general, roaches have flat bodies which enable them to hide in cracks and crevices. Roaches are known carriers of Salmonella, bacteria which can cause a disease resulting in severe vomiting, diarrhea, and fever. Roaches spread filth and disease. They are sensitive to light and feed on contaminated materials in the dark. After taking germs, among other things, into their stomachs, roaches spread these germs to anything they touch or to anything that touches any of their discharges. Some signs that roaches are present include stains from their droppings, a musty odor, or empty egg cases from which roaches have hatched.

Flies–There is no such thing as a clean housefly. The female fly lays her eggs in the decaying matter of human or animal wastes, and the hatched offspring never seem to improve their surroundings! Flies have an amazing sense of smell, and they are attracted to any type of food or waste odors. A fly spreads germs in three ways: from its body wastes, from its feet and hairy legs, and in its manner of feeding. When eating solid food, the fly spits up a stomach fluid to dissolve the food; this fluid is packed with germs.

Ants—Any of the several hundred species of ants can find their way to food. Ants eat a variety of food, particularly sweets and fats such as syrup and fried foods, and can easily contaminate anything they touch. Ants spread germs by carrying filth and food waste on their legs and bodies.

RODENT PESTS

All you can eat for a nickel?
"Children under 10 are FREE!

Rats and Mice—Both cause much suffering each year in illness, death, and destruction of property. When these pests are numerous, two things are certain: (1) there is an easily available supply of food, and (2) there are plenty of places for them to hide and raise their offspring. Both pests can gnaw through wood, and squeeze through surprisingly small openings. A one-half inch crack will admit a young rat or an adult mouse! Both dislike open spaces, and they move along walls, leaving a dark, greasy trail. They prefer to take their food into hiding, but they will eat larger items wherever these are found. Rats and mice transmit disease by the fleas they carry on their bodies and by their urine and feces, which infect food.

PEST BIRDS

Most people think of birds as beautiful and harmless, and most of the time this is true. However, there are three birds that can be pests to the food service operator. These birds are the city pigeon, the English sparrow, and the European starling.

These birds are very much like rats and mice. They depend on what humans discard for food, and human buildings for shelter. The federal law does not protect these birds since they are a problem in sanitation.

Birds are pests to the food service industry in several ways. They build their nests in attics and roofs and this creates fire hazards. Their droppings are unsanitary because of their smell and possible contamination of food. Birds carry several human diseases such as psittacosis (usually occurs as pneumonia accompanied by a high fever) and encephalitis (an inflammation of the brain).

Almost all birds carry mites, lice, or ticks. Mites, which are most common, hide in the nest during the day and feed on the birds at night.

PANTRY PESTS

Bran Beetles—Small, brownish-color bran beetles are usually found in flour, mixes, and cereal. These beetles are often called "weevils."

Weevils—Gray or brown, wedge-shaped beetles called "weevils" infest dried beans and peas. The rice weevil infests rice, macaroni, noodles, and spaghetti. Adult weevils buzz and fly around lights.

Hide and Larder Beetles–Hide beetles have black backs, while larder beetles have a yellow band across their backs. They feed on ham, bacon, cheese, smoked meats, and organic debris (the remains of living creatures).

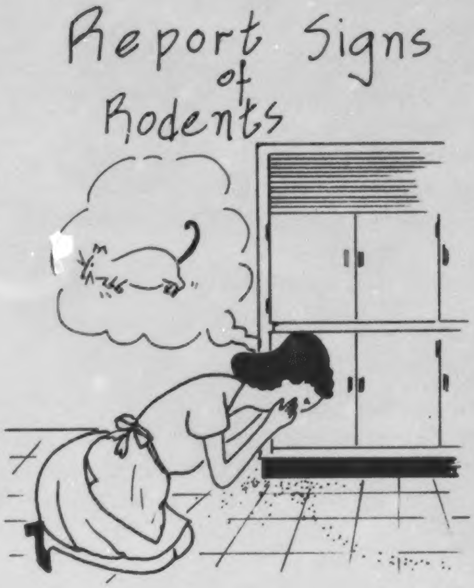
Cereal Mites–Small cereal mites are hardly visible to the naked eye, but in large numbers, they appear to be a fluffy mass of gray powder. These pests are found commonly in cereal and cereal products. A severe skin eruption may develop in humans handling infested products.

Flour and Meal Moths–The worm stage of flour and meal moths is the most destructive. The worms feed on corn, wheat, flour, popcorn, dry baby foods, candy, and dried vegetables, among other things. Flour and meal moths are distinguished from pantry beetles by a webbing which they spin over and through the materials in which they live.

Silverfish and Firebrats–Silverfish are gray and about one-half-inch long. They have no wings and run rapidly along floors, walls, and ceilings. Firebrats are tan and gray and are also unable to fly. Both hide in cracks and between layers of insulation. They feed on starchy materials, such as wallpaper paste, starched clothing, and spilled starchy food.

DESTROYING AND REPELLING PESTS

The best insurance against pests is to store food properly and to clean up promptly any spilled food. To remain free of pests, the food service establishment must take pest control measures on a regular basis. These meaures include: (1) keeping all windows and doors shut, (2) maintaining proper sanitation and housekeeping inside and outside of the establishment (use of pesticides might be necessary), (3) eliminating the presence of rodents, and (4) cleaning garbage cans and keeping them covered.



Occasionally, these measures are not enough to completely control or eliminate all types of pests. Professional pest control experts should handle the exterminating or repelling of any type of pest. If you see any signs of pests at your training station, report them to your supervisor immediately. Losses due to customer annoyance, unfavorable publicity, and damage from insects and rodents total several billion dollars each year. Do not allow your training station to become a nesting place for any type of pest!

PESTICIDES AND SAFETY

Pesticides are harmful not only to insects but to humans, too. For this reason, precautions should be followed when storing, using, and disposing pesticides. Some precautions that should be followed are:

1) Be sure containers are labeled properly.
2) Follow directions on label.
3) Do not use around food or other individuals.
4) Store in a safe place.
5) Rinse bottles and cans when empty and destroy.

QUESTIONS:

In Items 1-5, supply the information required in the space provided.

1. Name the most common pests in food service establishments.

2. How do the following pests transmit disease?
   a. roaches

   b. flies

   c. rats/mice

   d. ants

3. Name three things that make birds pests to the food service industry.
   a.
   b.
   c.

4. What measures should be taken in pest control?
   a.
   b.
   c.
   d.

5. Name three precautions to remember in using pesticides.
   a.
   b.
   c.

In Items 6-9, place the word or words which correctly complete the statement in the blank(s) provided.

6. Pests are dangerous carriers of ______________________.

7. ______________________ is an important part of any sanitation program.

8. Pests are eliminated from storage and food service areas by ______________________, ______________________, and ______________________.

9. When signs of pests are noticed, the employee should ______________________

ASSIGNMENT:

I. Find out which insecticides are acceptable according to the state board of health. Why are some types of insecticides banned?

GROUP WORK:

I. Compare the information for the above assignment with information obtained by other food service and dietary employees.

II. View a film on the basic rules of sanitation, personal hygiene, food storage, handling potentially hazardous foods, and controlling pests.

UNIT II-4

SANITATION

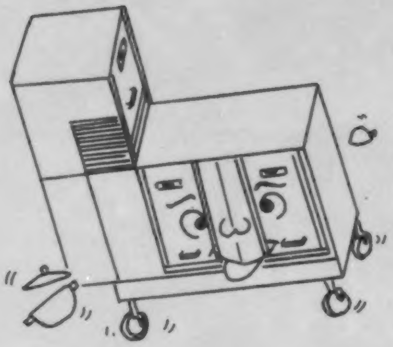
SUBJECT: Procedures for Dishwashing

TASKS:

5. Wash and inspect glassware, flatware, and tableware for cleanliness, spotlessness, and damage.
6. Wash utensils and cooking equipment.

OBJECTIVE: When you finish this lesson, you should be able to

a. describe proper procedures for washing dishes and equipment.



REFERENCE: Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 287-298.

Dishwashing consists of both the cleaning and the sanitizing of dishes and utensils. The cleaning procedure removes visible soil, detergent, and wash water from the dishes and utensils. Through the use of heat and chemical disinfectants, the sanitizing treatment reduces bacteria which cause foodborne illnesses.

Dishes that are sanitary are free from:

1. visible soil, such as eggs and gravy.
2. stains, such as coffee, tea, and lipstick.
3. greasy film.
4. cracks and chips that harbor bacteria.
5. bacteria that cannot be seen by the naked eye.

Representatives from the detergent company frequently take bacteriological counts of dishes and utensils used in food service operations. Advice given on these occasions should be heeded. Some food services conduct their own bacteriological counts. Others hire bacteriologists to make regular inspections of the dishes, utensils, and equipment used in the food service operation. The bacteriological examinations are made regularly without advance warning.

QUESTIONS:

In Items 1-5, supply the information required in the space provided.

1. When three-compartment sinks are used for washing pots and pans, for what is each compartment used?
   a.
   b.
   c.

2. List the steps for washing dishes by hand.
    a.
    b.
    c.
    d.

3. How should cups and glasses be placed in the dish machine?

4. When unloading the dish machine, what steps should you follow in the care of silverware?
    a.
    b.
    c.

5. Name two things that sanitary dishes are free from.
    a.
    b.

In Items 6-11, place the word or words which correctly complete the statement in the blanks provided.

6. The sanitizing treatment reduces bacteria which cause food-borne illnesses through the use of ____________________ and ____________________.

7. Chemicals that stop the growth of bacteria on the surfaces of dishes, pots, and pans are called ____________________ and ____________________.

8. Chemical cleansing agents are called ____________________.

9. Sanitizing dishes and pots is necessary to prevent ____________________ diseases.

10. Health inspectors in most localities make frequent ____________________ counts.

11. The temperature of the wash water should be between __________°F. and __________°F. Temperature of the power rinse should be __________°F. and the temperature for the final rinse should be __________°F. for proper sanitizing.

ASSIGNMENT:

I. Outline the procedure used for washing dishes, pots, and pans at your training station. List some ways you can improve your work habits in relation to proper dishwashing procedures.

GROUP WORK:

I. Compare the procedure for dishwashing used at your training station with procedures used at others.

II. View a film on proper dishwashing methods. Note the importance of using the proper rinse temperatures and detergent.

UNIT II-5

SANITATION

SUBJECT: Care of Furniture, Floors, and Surface Areas

TASK: 7. Clean and sanitize furniture, floors, and other surfaces in the kitchen and in the serving area.

OBJECTIVES: When you finish this lesson, you should be able to
a. explain the importance of clean tables and chairs
b. describe the procedures for cleaning various surfaces.

FURNITURE AND SURFACE AREAS

Cleanliness is necessary to preserve the appearance of furniture and to sanitize surface areas. Clean, attractive surroundings also help to make a meal enjoyable. If customers or patients sit on a wet or sticky chair, they will be dissatisfied. If you are assigned to dust the furniture or wipe the table tops and chair seats, remember the role of cleanliness in creating an atmosphere that promotes customer satisfaction or a good appetite in the patient.

What procedure should you follow to clean a table or counter? Obviously, the first step is to remove the dishes, glasses, silverware, and trash. If a cart is used for the removal of these items, use a separate pan for each item to reduce breakage. Place silverware in one pan and dishes in another pan. Place the dishes in the pans quickly, but quietly.

The next step is to wipe the table or counter. Use a cloth which is clean, rinsed, and wrung out. Imagine how you would feel if someone used a dirty cloth to wipe the table or counter where you were eating. After wiping the table or counter, check to be sure that no sticky spots remain and that the surface is dry.

At least once a day, clean table tops and counters with a sanitizing solution. The kind of sanitizing solution used varies from one establishment to another.

Check the ashtrays, salt and pepper shakers, and sugar containers, and wipe these items clean. Use a napkin to wipe the ashtray clean. Ashtrays should be run through the dishwasher periodically. While you are at the table, check the chair seats, wipe them clean with a damp cloth, and dry them with a clean cloth.

Other surfaces to keep clean are windows, shelves, glass counters, pie cases, service equipment, and beverage containers. Dusty or dirty surfaces not only affect the customer's or patient's appetite but provide opportunities for bacteria to grow as well. More customers are lost because of a lack of cleanliness than for any other reason. Be alert to the appearance of all the surfaces in the area where you work and keep them spotless!

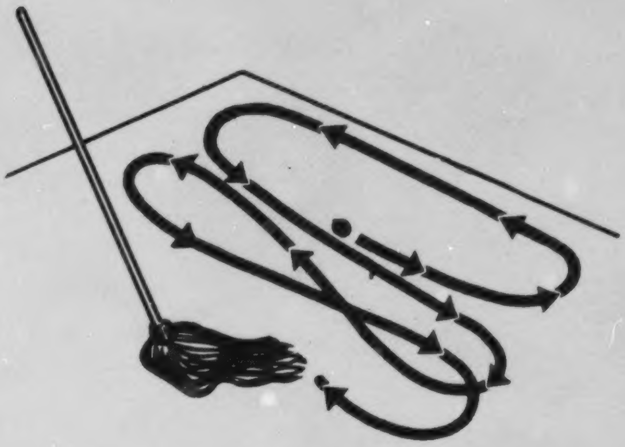
Plan ahead when you are assigned cleaning tasks and take all the equipment you need with you. Move from one area to the next in an organized manner. If you have several different things to do, finish one task and then go on to the next.

FLOORS

Have you noticed the floors in the health care or food establishment where you work? Have you stopped to think about the importance of clean floors in a place where food is served? Floors must be kept clean for two reasons: safety and appearance. Floors should be checked constantly for spilled foods or other debris. Spills should be cleaned immediately—not after someone has fallen. Daily or more frequent cleaning of floors is necessary in all establishments where food is served. If cleaning is done carefully each day, it will not be a difficult task. The chart below gives suggested procedures for cleaning floors.

Floor Finishes	*Care Required*
Concrete—a hard, compact substance made of sand, gravel, cement, and water.	Sweep regularly. Scrub with detergent solution; rinse.
Terrazzo—small chips of marble set in cement and polished.	Scrub with detergent solution; rinse and mop dry. Abrasive cleaner may be used occasionally to remove heavy soil and stain. Terrazzo sealer may be applied to areas where traffic is heavy.
Ceramic Tile—a mixture of clay and water which has been baked at a high temperature. May be either glazed or unglazed.	Sweep with soft brush. Wash with detergent solution; leave suds on long enough to loosen soil; mop; rinse with clean, warm water; mop dry.
Rubber Tile—various types of rubber are heated and rolled out under pressure, then cut into tiles.	Sweep with a soft brush. Mop with clean, lukewarm water. If soil is not removed, use a small amount of ammonia or non-fat synthetic cleaner. Mop a small section at a time; rinse; dry; buff thoroughly. The more the floor is buffed, the less often it will need to be washed.
Vinyl Tile—similar to rubber tile. A type of plastic which is tough, flexible, and shiny.	Sweep with soft brush. Wash with ordinary cleaning solutions. Rinse and mop-dry.
Hardwood (waxed)—oak is most commonly used. Beauty is in the grain of the wood.	Sweep with soft brush or mop free from oil, since oil tends to dissolve wax and leave a film over the surface of the floor. Remove spots by rubbing the floor with a cloth dampened with liquid wax, and polish. Remove exceptionally soiled spots with steel wool and a cleaning solution. Remove wax by rubbing the floor with a cloth dampened with a prepared cleaner. Then wash the floor with a mild detergent solution; rinse with clear water; dry; rewax, and polish.
Carpet—heavy, woven or felted fabric usually with a nap or pile.	Vacuum daily. Remove spots immediately. Shampoo approximately twice a year. Reset or brush pile after shampooing.

A task can either be done in a way which takes an unnecessary amount of time and energy or in a way that takes the least possible amount of time and energy. Cleaning or mopping floors is no exception. Below are some general guides for efficient floor cleaning.



1. Use two buckets–one filled with clean warm water and one filled with water to which a synthetic detergent has been added.
2. Dip the mop into the bucket with detergent, and wring out until partially dry.
3. Start about two feet from the baseboard as shown in the illustration and then make a long stroke close to the baseboard. Use a figure-eight motion as you mop. To remove any stubborn spots, use the heel of the mop.
4. Mop an area about 9 x 12 feet; then rinse and dry the floor.
5. Change cleaning solution and rinse water often.
6. When the job is completed, clean the equipment and store it in specified areas.

QUESTIONS:

In Items 1-5, fill in the blanks with the word(s) that complete(s) the statement.

1. The cloth used to wipe the table should be ______________________, rinsed and wrung out.
2. After wiping the table, check for any remaining sticky spots by ______________________ ______________________.
3. Table tops should be cleaned with a sanitizing solution at least ______________________ a day.
4. Plan ahead when you are assigned cleaning tasks and take all the ______________________ you need with you.
5. The motion to be used with mopping floors is a(n) ______________________

In Items 6-14, match the *type* of floor to the suggestions for *care* of floors. Place the letter of the type of floor in the blank to the left of each care method. Letters may be used more than once.

Care

_____ 6. Remove spots with a cloth dampened with a liquid wax.
_____ 7. Use a sealer in heavy traffic areas.
_____ 8. Wash with ordinary cleaning solution.
_____ 9. Use steel wool and a cleaning solution to remove heavy soil.
_____10. Use ammonia to remove soil.
_____11. Shampoo approximately twice a year.
_____12. Use abrasive cleaner occasionally to remove soil and stain.
_____13. Leave detergent on floor long enough to loosen soil.
_____14. Never use an oil mop for dusting.

Types

a. Carpet
b. Concrete
c. Clay Tile
d. Hardwood
e. Rubber Tile
f. Terrazzo
g. Vinyl Tile

ASSIGNMENT:

I. Using the chart on p. 58, make a floor care chart using the floor types found in your training station. Identify the kinds of floors and the procedures to use in caring for them.

GROUP WORK:

I. Compare your floor care chart with those made by other food service and dietary employees. What types of floors were commonly found?

II. Get samples of different floor types from a store and do experiments by dropping various foods on the floor samples and testing cleaners and methods to see which gives the best results. Report your findings to the class.

UNIT II-6

SANITATION

SUBJECT: Sanitation Codes

TASK: 8. Follow federal, state, and local sanitation codes.

OBJECTIVE: When you finish this lesson, you should be able to
a. relate provisions of sanitation codes to the duties of a food service employee.

REFERENCE: Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 276-278.

The main purpose of food sanitation codes is to protect the consumer of food. Specific purposes of the codes are to:

1. protect food against infection by observing sanitary standards. These standards reduce the opportunity for bacteria to gain entrance into the food and to multiply.
2. ensure wholesomeness of food so that it is clean, free from contamination, and suitable for human use.
3. meet customer expectations by providing a clean, appealing, pleasant atmosphere for meal service.

Food sanitation programs cover all eating, drinking, and health care establishments, as well as food sources and the transportation of foods. Food sanitation programs are based on nationally accepted public health principles and standards, but methods may vary due to local customs and problems.

The United States Department of Health and Human Services and the United States Department of Agriculture are the two federal agencies most concerned with the sanitary aspects of food production. Two divisions of the Department of Health and Human Services are the Food and Drug Administration and the Public Health Service. These divisions set up model codes which may be adopted by states, counties, and cities.

Other agencies which have authority over food sanitation are state and local agencies, city health departments and boards of health, and the state departments of health. In general, the Public Health Service sets up the food sanitation code, which is widely adopted by state and local health departments. This code defines applicable terminology; sets standards for food supplies and protection; sets standards for personnel and for food equipment; and provides for the inspection of sanitary facilities, contamination controls, physical facilities, and operations.

A permit to operate may be issued to an establishment on the basis of the adopted code. Inspection of the food service business or health care establishment is done at regular intervals by a competent inspector from the agency in authority. Failure to comply with standards of the code may result ultimately in suspension of the permit to operate.

The food service or dietary employee must understand

1. the importance of sanitation.
2. the reason for the sanitation code.
3. the penalty involved if sanitation regulations are not met.

Action can be taken by the health department if an employee is suspected of transmitting a disease or illness. The health department may require the following: (1) immediate termination of the employee, (2) immediate closing of the food service establishment until it is free of disease outbreaks, (3) the employee to work in areas not involved in handling food, or (4) medical examination of the employee and co-workers.

Understanding sanitation helps the food service employee follow the regulations carefully.

QUESTIONS:

In Item 1, supply the information required in the space provided.

1. List the requirements enforced by the health department if an employee is suspected of transmitting a disease or illness.
    a.
    b.
    c.
    d.

In Items 2-9, fill in the blanks with the word(s) that complete(s) the statement.

Use the list of agencies below to answer Items 2, 3, and 4.

Agencies

Food and Drug Administration
Public Health Service
Department of Health and Human Services
Department of Agriculture
State Department of Health
City Health Department

2. The two main divisions of the United States Department of Health and Human Services which set up model sanitation codes are the ________________ and ________________

3. A second federal department which is concerned with the sanitation of food is the ________________

4. Two types of non-federal agencies which work with food protection and sanitation are the ________________ and the ________________

5. The science of cleanliness is ________________.

6. Preventing and arresting harmful germs and bacteria in patient areas or operating rooms is maintaining ______________________ conditions.

7. Standards for sanitation in food service are established and enforced by laws known as ______________________.

8. Foods containing harmful germs and bacteria, which are capable of causing illness if anyone eats the food, are ______________________.

9. Failure to comply with standards of sanitation codes may result in ______________________.

ASSIGNMENTS:

I. Find out what laws protect food in your city. What sanitation ordinances are in effect where you live? Which of these laws and ordinances affect you on the job as a health or food service employee?

II. Listen to a resource person from a restaurant or health department present reasons for sanitary practices in handling food. What laws help promote sanitary practices in public eating establishments?

GROUP WORK:

I. Compare the information found for the above assignment with that obtained by classmates.

II. Explain the need for sanitary practices by participating in a circular response (class members sit in a circle and take turns responding) to finish statements concerning sanitary practices in food preparation and service. Examples: "I dislike a waitress who. . ." "Restaurants should be careful to. . ." "It is important to prepare food in a clean place because. . ." "Food served in a dirty utensil causes me to. . ." "Greasy smudges on a drinking glass make me feel. . ."

III. View a film on the role of sanitation and good housekeeping procedures in a food service establishment.

UNIT III-1

SAFETY

SUBJECT: Safety Precautions

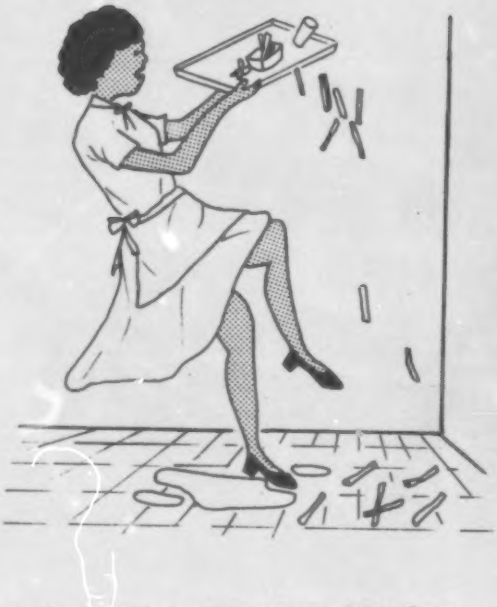
TASKS:

9. Use precautions necessary to avoid accidents.
10. Follow appropriate emergency procedures.

OBJECTIVES: When you finish this lesson, you should be able to

a. evaluate yourself in terms of rules of safety applied on the job
b. identify potentially hazardous conditions.
c. determine the appropriate treatment for a specific emergency.

REFERENCE: Cornelius, Ethelwyn, G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 301-310.



Food service and dietary employees who are aware of the discomforts and waste resulting from accidents can help others as well as themselves to develop safe work habits. Accidents usually result from employees classified into three general groups:

1. Those who do not understand the dangers in their unsafe acts.
2. Those who do not take necessary precautions.
3. Those who are physically defective in eyesight, hearing, or muscular control.

Accidents result from unsafe acts or unsafe conditions. An injury always results from one or a combination of these factors. Injuries due to unsafe conditions can be eliminated definitely and permanently. Unsafe acts involve human beings and never can be eliminated entirely. Unsafe acts which cause accidents are often a result of failure to follow instructions, to use equipment properly, to control one's temper, or to rest adequately. Have you been guilty of any of these causes of unsafe acts?

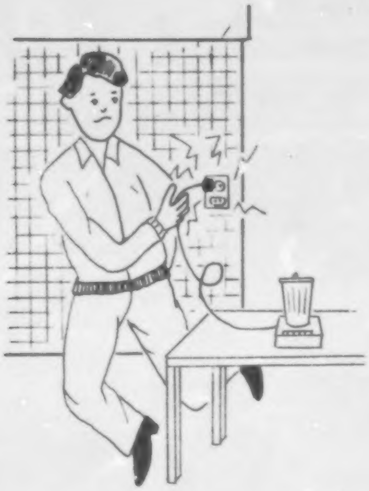
Employees must develop special attitudes as well as skills to do their jobs the safest way without stopping to think about it. Three simple steps which help make safe work procedures a habit are:

1. Start the job right by learning safe procedures.
2. Practice safe procedures until they become habits.
3. Never fall back into old habits of carelessness.

In food service establishments, the most common injuries are cuts and burns, as well as injuries resulting from falls. Because food preparation and service involve the use of glass, hot liquids, sharp instruments, power-operated equipment, and hot cooking surfaces, employees work constantly under hazardous conditions.

When an employee is seriously injured, the result is pain, suffering, and lost job time. This means lost income! So, remember, your own safety is up to you!

SAFETY PRECAUTIONS



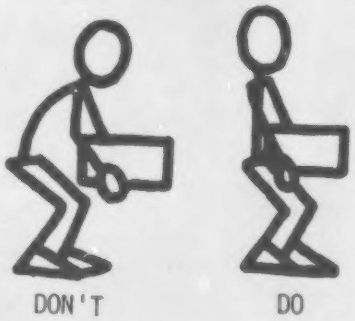
To Prevent Electric Shock:

1. See that electric cords are in good repair.
2. Always dry your hands before touching electric equipment.
3. When plugging in anything electric, plug the cord into the equipment or appliance first, and then into the electric outlet. When removing the plug, reverse the order: remove the plug from the electric outlet first; then remove the plug from the appliance.
4. Be extra careful when using anything electric near water.

Refer to *Food Service Careers* for other safety precautions to prevent slips, falls, strains, cuts, burns, and fires.

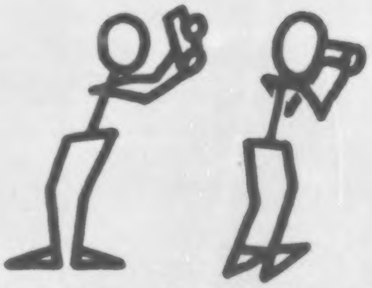
BODY MECHANICS

Lifting heavy containers of food or ingredients may lead to injuries if the lifting is not done correctly. To lift the right way, place your feet about twelve inches apart, squat close to the object to be lifted, keep your back as straight as possible, and lift by pushing up with your leg muscles.



While carrying objects, keep the load close to the body. Never carry loads so high that vision is blocked. Put the load down by reversing the procedure used to lift it.

If a task requires turning from one direction to another, be sure to turn, not twist, your body. Constant twisting pulls the back muscles and may strain them. Pivot with your feet and turn.



Food service and dietary employees must be alert constantly to protect themselves and others from accidents on the job. The following questions will aid the employee in recognizing conditions which are potentially unsafe or dangerous to the health of employees.

1. Are floors safe (level; not cracked; free from missing, broken, or loose tile; properly waxed; free of grease spills, mud, sand; holes or tears in carpet repaired; scatter rugs treated with anti-skid spray, rubber coating, underlays; edges of rug tacked down)?
2. Are shelves and storage space strong enough to hold weight of items stored?
3. Is proper equipment provided for reaching high storage, and is this equipment safe (ladder, stool, etc.)?
4. Are trash containers washed daily?
5. Are stairs provided with adequate railings?
6. Are switches readily accessible?
7. Are knives being used properly (placed on racks instead of in drawers; not placed in dishwater; carried with tips down instead of up)?
8. Is equipment safe (proper machine guards in place, no dull blades)?
9. Is lighting adequate?
10. Are passageways and aisles clear?
11. Have broken and chipped dishes been discarded?
12. Do employees practice proper lifting methods?

WHAT TO DO IN CASE OF ACCIDENTS

When employees have accidents, they should receive immediate care. First, the accident must be reported to the supervisor, who will probably send the employee to the first aid station; or if the accident is serious, the supervisor will send the employee to a doctor or call an ambulance. Small cuts, burns, or bruises should be cared for immediately.

Employees may leave their work station to find first aid, if necessary. Employees should do their part to guard against accidents, but in case an accident occurs, they should seek aid for *any* type of injury suffered. No injury is too small to report. Remember you must fill out accident reports for any injury.

Choking

Occasionally, a person will choke on a food or beverage. Choking occurs when a foreign object lodges in a person's throat and cuts off breathing. When choking occurs, the person cannot speak and may not be able to move either. The choking victim may be unable to alert anyone to what is happening. Without help the person will die in only a few minutes.

Food service employees should stay alert for signs that a customer may be choking. Should you believe a customer is choking, act quickly. Go to the person immediately. To be certain whether the person is choking rather than having a heart attack, ask the person a question like, "Do you need some help?" The person who is choking will *not* be able to answer aloud. The heart attack victim will be able to answer aloud.

If you are certain the person is choking, perform the Heimlich Maneuver immediately. The Heimlich Maneuver is a method used to force the object causing the choking out of the person's airway by using air still in the victim's lungs. To perform the Heimlich Maneuver:

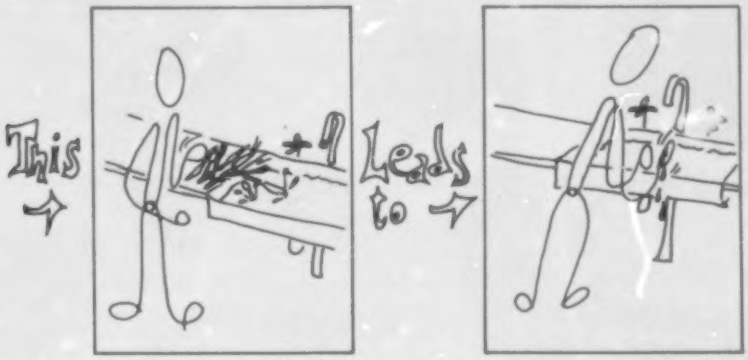
1. Stand behind the victim and put your arms around the victim's waist.
2. Place the thumb side of your fist on the victim's abdomen between the navel and the breastbone.
3. Place your other hand on your fist and press hard with an upward thrust.
4. Repeat if needed.

If the object has entered the windpipe or the tubes leading to the lungs, you will recognize this by the coughing that occurs. In this case, removal by a specialist is required.

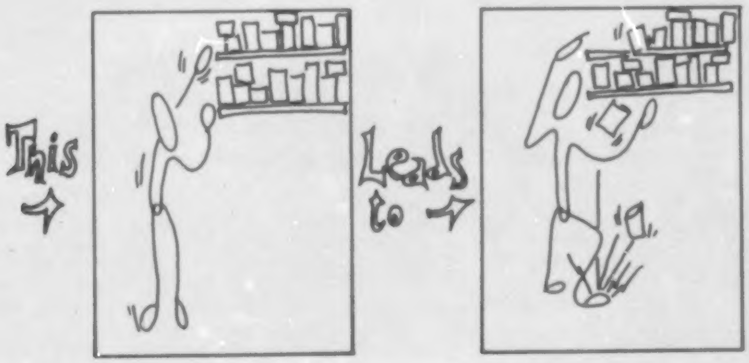
QUESTIONS:

What safety precaution is illustrated in each of the following diagrams?

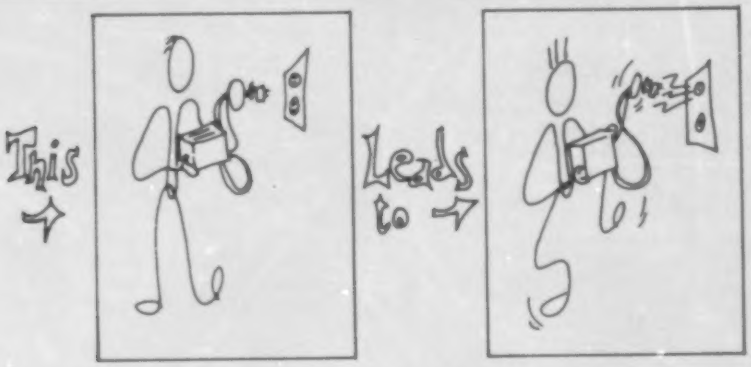
1. ____



2. ____



3. ____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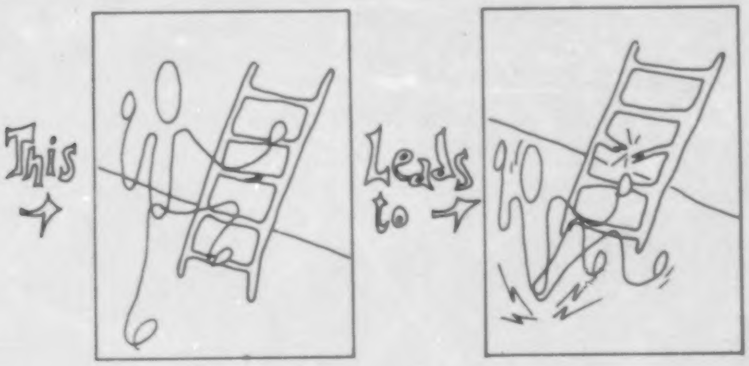
4. ____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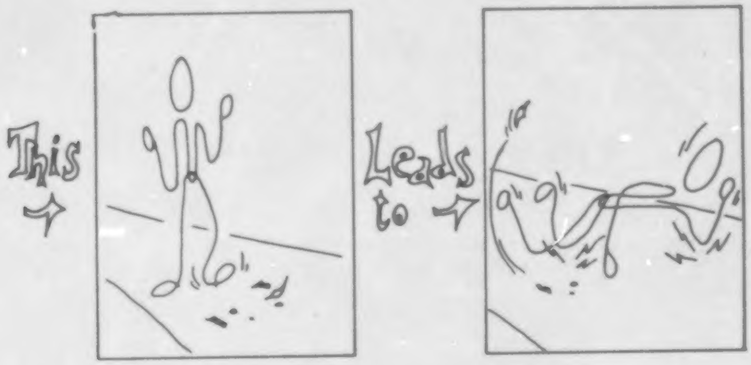
5. ____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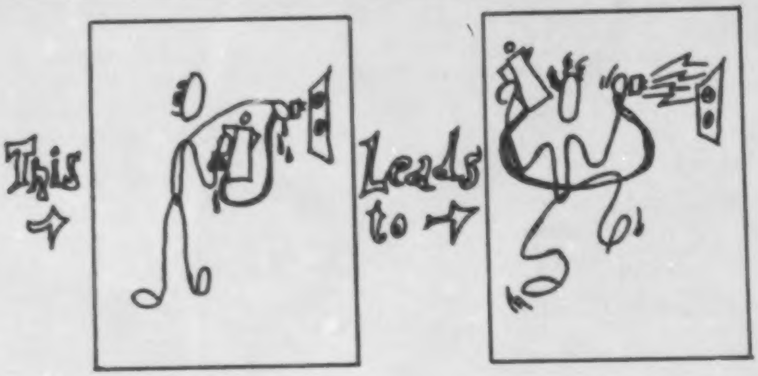
6. ______________________________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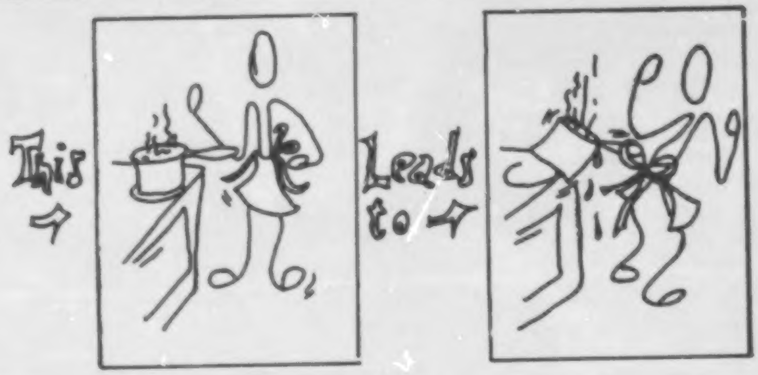
7. ______________________________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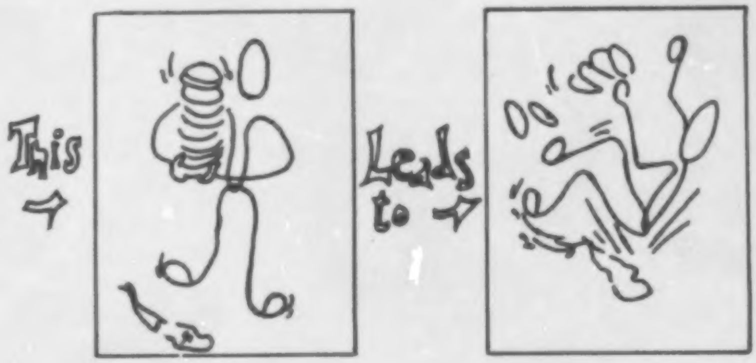
8. ______________________________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9. The steps in establishing safety habits are ______________________________, ______________________________, and ______________________________.

10. Food service employees are protected by safety features such as ______________________________ ______________________________.

11. "Accident-prone" refers to ______________________________.

12. In food service and dietary kitchens the most common accidents are ____________________, ____________________, and ____________________.

13. Weariness from labor or exertion affects safety; this weariness is called ____________________.

14. According to recent accident surveys, when do the largest percentage of food service accidents occur? ____________________.

15. The law which assures safe, healthful working conditions for employees is ____________________ ______________________________.

16. The procedure used to expel a foreign object from a choking person's airway is called the ______________________________.

ASSIGNMENTS:

I. Make a check list of the safety precautions that might be useful to you at your training station. From observations in your work area, add other precautions to your list which apply specifically to your work.

II. Make safety posters identifying potentially hazardous conditions in the food service area. Display posters during National Safety Week. [NOTE: This might be used as an FHA-HERO project. It would provide an excellent opportunity for publicity through newspaper articles or public service announcements.]

III. Locate first aid supplies in or near your training station. Learn how to use first aid supplies for small cuts, burns, and bruises. Whom should you notify at your training station when a serious accident occurs? [NOTE: The local Red Cross or YMCA will teach first aid techniques. You might suggest first aid training for an FHA-HERO program or project.]

IV. Write to the United States Department of Labor, to the Occupational Safety and Health Administration in Washington, or to the local Health and Human Services office for a copy of the Williams–Steizer Occupational Safety and Health Act of 1970. (This act is also known as OSHA.) Prepare a report to present to your class on the purpose of this act. In the report include information on the violations, fines, inspections, and standards for occupational safety and health.

GROUP WORK:

I. In small groups, role play situations demonstrating good and poor safety habits. Example: The person role playing the narrator says, "If Molly follows this procedure, she may. . ."

II. Demonstrate to other food service and dietary employees the correct way to lift a heavy carton.

III. Invite paramedics to demonstrate CPR and the Heimlich Maneuver.

IV. View a film on food service safety. Films may be obtained from your local fire department or Regional Education Service Center.

V. Role play the steps you would take to treat burns, cuts, and falls. How could each of these accidents be prevented?

UNIT III-2

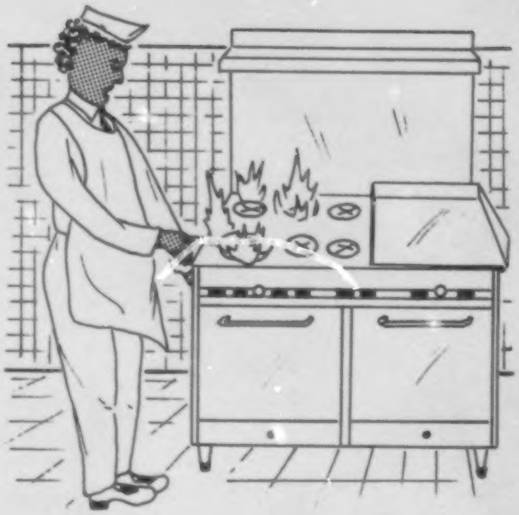
SAFETY

SUBJECT: Emergency Procedures

TASK: 10. Follow appropriate emergency procedures.

OBJECTIVES: When you finish this lesson, you should be able to

a. identify kinds of fires
b. explain fire emergency procedures
c. describe correct use of fire extinguisher
d. explain procedures for weather-related emergencies
e. describe procedures to follow in event of power failure.



The food service establishment's safety instruction should include what to do in case of emergency. The food service manager should identify the hazards most likely to occur in the food service facility. Personal injury from falls, strains, cuts, burns, and choking were discussed in the lesson on safety precautions. Fire and severe weather are also hazards to food service establishments. Emergency procedures for each hazard should be developed. Employees should be thoroughly instructed in each procedure. Emergency drills may be used to provide practice in reacting calmly to emergencies according to a set plan.

FIRE

Serious fires occur so often in dietary kitchens and food service establishments that every employee should understand fire safety and know what to do in case of a fire. Injuries often occur because people panic or become confused.

The most common places fires occur in food service are in or around deep fat fryers, ranges, and broilers. Thoroughly cleaning these pieces of equipment helps to prevent fires. Most of the time, fires are caused by carelessness. When working around heat and flame, employees should take extra precautions. Some of the most common causes of fires are listed below:

Worn electrical cords
Improperly grounded machinery
Improper fire protection
Splashing grease when frying
Improper clothing
Inadequate ventilation
Improperly connected gas lines or machinery, causing gas leaks
Flammable materials left close to heat
Lack of cleanliness; grease on ovens and hoods
Smoking in non-smoking areas
Improper lighting of gas stoves (always light match before turning on gas)

Fire safety is the responsibility of each employee. All employees should become familiar with the rules to follow in case of fire in their place of employment. Employees should know also the location of all exits in the areas where they work. Knowing where the nearest fire extinguisher is located and knowing how to operate it save precious minutes when a fire occurs.

If a fire occurs, follow the emergency fire procedures for the place where you are employed. Report to the fire department the exact location and type of fire. Alert other employees and assist customers or patients to safety.

Reporting the Fire

Never try to put out a fire alone. Always get help. First, notify the designated person in such an emergency. Then, if necessary, call the fire department; then alert other employees and customers or patients. Getting help serves two major purposes: (1) It brings more people to help extinguish the fire, and (2) It warns other employees near the fire. Never delay calling the fire department even for a few minutes. When it comes to putting out a fire, minutes can mean the difference between a small fire and a total loss, between a minor inconvenience and death.

Fires may be reported by turning on the alarm in a fire alarm box or by telephone. Red fire alarm boxes may located inside or outside buildings. After turning on the alarm, wait nearby until fire fighters arrive for directions. If your community uses fire boxes, do you know the location of the nearest one? The fire department's telephone number should be clearly posted beside each telephone. It is usually given inside the cover of the telephone book. If you can't find the number, dial the local operator who will either connect you with the fire department or take the information and report the fire for you. When you report a fire, be sure to give the following information:

1. your name
2. the name of the business
3. the address of the business
4. the type of fire
5. the location of the fire in the building
6. the size of the fire

Fire also should be reported to persons nearby, to the person in charge of the food service shift, and to the director of the building's fire brigade (if there is one). The designated persons then should take charge of evacuating the building, if necessary.

All employees should be familiar with the evacuation plan. They should know also their roles in carrying out the plan. Food service businesses need a plan for evacuating customers and employees. Health care facilities need plans for evacuating patients, visitors, and personnel. Schools need plans for evacuating children, teachers, and other employees.

Moving to Safety

If you discover a fire, don't open any doors until you touch them to see if they are hot. You can be sure if the door is hot, there is fire behind it. Many people die from smoke inhalation. Therefore, if the door is hot, you should find another exit from the building and not risk walking through smoke.

If you get trapped and must leave through a smoke-filled room, remember that the coolest, freshest air is close to the floor. You may need to crawl to safety to avoid suffocation.

Employees should not take any chances saving personal belongings. Your first priority during a fire is saving yourself, and unless another life is involved, no chances should be taken.

Food service and dietary employees should always keep fire doors, fire escapes, and fire exits free from equipment and debris. It would be helpful to know procedures for turning on the sprinkler system if time allows, and the system is not automatic.

Responding to the Fire

The three types of fire likely to occur in food service establishments are:

Class A – wood, paper, rubbish, etc.
Class B – gas, grease, other liquid
Class C – live electrical equipment

Can you identify areas in your food service establishment where each type of fire might occur?

If persons at the scene of the fire feel that they can safely control or put out the fire, they should do so. A fire must have three things to burn:

Oxygen + Fuel + Heat = Fire

Almost any material can become fuel for a fire–food, rags, flammable liquids like grease or cleaning fluids, wood, furniture, plastics.

Fire can cause death in several ways. Fire consumes oxygen people need to breathe. Normal air contains about 21 percent oxygen. During a fire, the oxygen level drops rapidly. If the oxygen level falls below 17 percent, clear thinking and muscle control become more difficult. Attempts to escape become irrational. For example, people in a restaurant may run blindly to a corner rather than to an exit, pushing and shoving, and trampling people in their way. When oxygen falls below 6 percent, breathing stops. After 4 to 6 minutes without oxygen, brain death occurs.

Fires also produce very hot air, smoke, and toxic fumes which can kill. Faster breathing, due to heat, fear, and less oxygen in the air, increases the amounts of poisonous gases inhaled. These gases can impair sight, smell, and reasoning power.

The heat produced by fire can cause loss of consciousness or death within several minutes. Our bodies can stand high temperatures (150° - 250° F.) for only moments.

Smoke is probably the fire's major threat. Smoke moves quickly. It hampers visibility, obscures light, and blocks vision. Smoke particles irritate the respiratory system, impair sight, and cause coughing and sneezing. Smoke causes difficulty in breathing, seeing, and thinking clearly. These difficulties can lead to panic.

If the fire is small you may be able to put it out without danger. To put out a fire, you must remove one of its essential ingredients.

Keep the fire from getting oxygen.

1. If the fire is in a pan, put the lid on or douse with baking soda. The fire will quickly consume its remaining oxygen and die.
2. Smother the fire with a fire blanket.
3. Cover the fire with foam from a fire extinguisher.
4. Drown the fire with water. *Do not* use water on grease or electrical fires.

Remove the fuel.

1. Turn off the breaker switch to stop fueling an electrical fire.
2. Turn off the gas.
3. Remove nearby flammable materials.

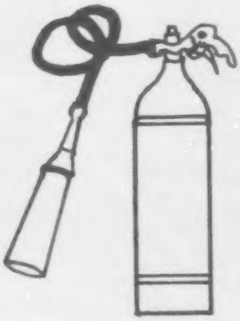
Remove the heat.

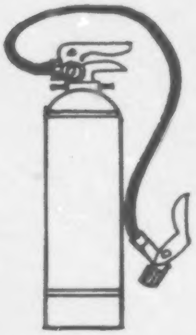
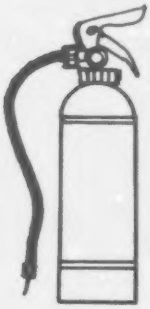
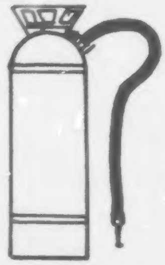
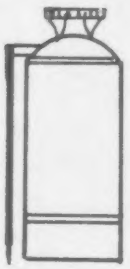
1. Cool the fire with water.
2. Turn off the burner or heating element under the container of grease or cooking oil.

When you choose to extinguish or contain the fire, be careful. Keep an escape route open so you can get out if the fire gets bigger. Do not reach over the fire to get baking soda or the fire extinguisher. You could get burned or catch your clothing on fire.

Know how to use the fire extinguishers available before a fire occurs. The different types of fire extinguishers, their uses and operation are given on the following chart.

Fire Extinguishers

Fire Extinguisher	*Contents*	*Use*	*Operation*
Carbon Dioxide (CO-2) 	Liquid carbon dioxide under pressure	Burning liquids or electrical fires where a smothering action is needed	Carry to fire, pull pin on side of handle, and open valve. Hold by insulated handle. Squeeze handle grip and direct discharge from horn to base of fire. Discharge range is 6 to 8 feet. A 15-pound size lasts about 42 seconds.

Fire Extinguisher	*Contents*	*Use*	*Operation*
Dry Chemical 	Bicarbonate of soda, dry chemicals and cartridge of carbon dioxide gas	Live electrical fires; wood, paper, excelsior, and other ordinary combustible materials	Carry to fire, pull pin, and open valve (or press lever). Squeeze handle grip and direct discharge to base of fire. Discharge range is about 14 feet. A 30-pound size lasts 22 to 25 seconds.
Pressurized Water 	Plain water	Paper, wood, excelsior, cloth, and general combustible fires requiring cooling and quenching	Carry to fire, squeeze handle grip, and direct discharge to base of fire. Discharge range is 30 to 40 feet. A 2½-gallon size lasts 50 to 55 seconds. Do *not* use on burning liquids or live electrical fires; it will spread the fire or cause a deadly shock.
Soda-Acid 	Bicarbonate of soda solution and sulfuric acid	Paper, wood, excelsior, cloth, and general combustible fires requiring cooling and quenching	Carry to fire, turn bottom up, and direct discharge to base of fire. Discharge range is 30 to 40 feet. A 2½ gallon size lasts 50 to 55 seconds. Do *not* use on burning liquids or electrical fires; it will spread the fire or cause a deadly shock.
Foam 	Aluminium sulfate and bicarbonate of soda	Grease, oil, gasoline, and paint fires	Carry to fire, turn bottom up, and direct discharge to base of fire. Discharge range is 30 to 40 feet. A 2½ gallon size lasts 50 to 55 seconds.

Fire Extinguisher	*Contents*	*Use*	*Operation*
Gas Cartridge 	Water and cartridge of carbon dioxide gas	Wood, paper, textile fires; gasoline, oil, anesthetic, or organic solvent fires	Carry to fire, turn bottom up, bump, and direct discharge to base of fire. Discharge range is 30 to 40 feet. A 2½-gallon size lasts 50 to 55 seconds.
Vaporizing Liquid 	Carbon tetrachloride and other chemicals	Live, electrical fires	Carry to fire, turn handle, pump by hand, and direct discharge to base of fire. Discharge range is 20 to 30 feet. A 1 quart-size lasts 40 to 45 seconds.

BURNS

Food service employees should be aware of first aid treatment for burns in case another employee is burned by fire or hot surfaces or food. One of the most common causes of burns in the dietary and food service kitchen is from pans of frying food, or from a wet cloth used to handle hot pots and pans. A dry cloth should always be used when handling hot utensils. To avoid steam burns, always lift lids away from your arms and face.

There are three types of burns: first-degree, second-degree, and third-degree. The chart below describes each type and what treatment should be administered.

Type	*Description*	*Treatment*
First-degree (1°)	Skin reddened but unbroken	Place under cold water.
Second-degree (2°)	Skin reddened, blisters formed	Place under cold, running water. Cover with dry, sterile dressing.
Third-degree (3°)	Skin partly destroyed; charring present	Cover entire area with a dry sterile dressing.

Avoid removing clothing that is stuck to burned areas, but when possible, remove clothing from burned area before it is treated. Medicine or ointment should not be applied to burns except when ordered by a doctor. Blisters should not be broken.

WEATHER EMERGENCIES

Food service businesses should plan for weather-related emergencies as part of their overall safety program. Food service managers should identify the hazards most likely to occur in their area and make plans for dealing with each. Weather-related hazards most likely to affect food service businesses include thunderstorms, lightning, tornados, hurricanes, and blizzards.

Weather Alerts

For any type of severe weather, it is important to stay aware of what is going on. The most common sources of information are news and weather reports on local radio and television stations. A National Weather Service weather radio can be purchased to provide 24-hour weather reports and weather watches and warnings. An attention alert signal is used in some areas to alert the public to fire or storms. An *attention alert signal* is a three- to five-minute, steady, high-pitched tone. It means that action is required. Food service workers should learn the uses of such signals locally. Knowing the signal's local meaning will help you know how to respond. In many locales, the signal means that you should tune to a local TV or radio station broadcast for information.

Tornados

Tornados are threats in many parts of the country. Even when conditions are favorable for tornados to develop, however, people's activities do not cease. They continue to work, shop, eat, and go about their daily lives.

Because a tornado may strike suddenly, food service employees should learn emergency procedures for responding to a tornado.

The National Weather Service issues two types of reports on tornados. A *tornado watch* means conditions are such that tornados could develop. A *tornado warning* means a tornado has been sighted--visually or by weather radar. Persons close to the storm should *take cover immediately.*

Watches are announced to the public by radio and TV, with some TV stations placing a symbol in the corner of the screen. The designated person, usually the food service manager, should monitor radio or TV stations during a tornado watch to obtain continuous weather advisories. This person should direct employees and customers to take cover if the signal is given.

Each food service employee should know the safest place for shelter in the food service establishment. When you hear a tornado warning, go immediately to the designated place. Safe places include tornado cellars, underground excavations, substantial steel-framed or reinforced concrete buildings. Avoid structures with wide, free-span roofs. Stay away from windows! Stand in an interior hallway on a lower floor, preferably in the basement. Keep radios and television sets on, but do not telephone the weather bureau or other information centers.

Power Failures

One common problem caused by both fire and severe weather is power failure. Power failure may occur as a result of other causes as well. The food service establishment should have a plan for evacuating customers and employees in the event of power failure. Panic due to the sudden darkness is the greatest hazard. The chance of panic can be reduced with several precautions:

1. Exits should be well-marked and kept clear.
2. Candles used on tables for atmosphere can provide light in case of power failure.
3. Calm employees who are familiar with evacuation plans should direct customers calmly and safely out of the building.

QUESTIONS:

In Items 1-4, circle T if the statement is true and F if the statement is false.

T F 1. Break blisters on burns to speed healing.

T F 2. Employees should try to gather all personal belongings before leaving a burning building.

T F 3. Employees should never leave a fire and go for help.

T F 4. A wet cloth should always be used when handling hot utensils.

In Items 5-11, match the type of fire extinguisher to the contents and uses of the extinguishers. Place the letter of the fire extinguisher in the blank to the left of its contents and use.

Contents and Use

_____ 5. Bicarbonate of soda and sulfuric acid; use on cloth, wood, general combustion.
_____ 6. Carbon dioxide gas; use on textiles, gasoline, oil, wood, and paper.
_____ 7. Carbon tetrachloride; use on live electrical fires.
_____ 8. Chemicals and carbon dioxide gas; use on live electrical fires, wood, paper, and combustible materials.
_____ 9. Plain water; use on paper, wood, and cloth.
_____10. Aluminum sulfate and bicarbonate of soda; use on grease, oil, gasoline, and paint fires.
_____11. Liquid carbon dioxide under pressure; use on electrical fires or burning liquids requiring smothering.

Fire Extinguisher

a. Carbon dioxide
b. Dry chemical
c. Foam
d. Gas cartridge
e. Pressurized water
f. Soda-acid
g. Vaporizing liquid

In Items 12-15, match the type of tornado report to its description. Place the letter of the type of tornado report in the blank to the left of its description.

Description

_____12. A tornado has been sighted–visually or by radar.
_____13. Conditions are such that tornados could develop.
_____14. Persons close to the storm should take cover immediately.
_____15. Persons close to the storm should stay tuned to radio or television for further information.

Report

a. Tornado watch
b. Tornado warning

In Items 16-23, indicate the safeness of each location described in case of a tornado. Place the letter indicating the safeness beside the description of the location.

Location

______16. Main floor dining room

______17. Interior hallway

______18. Interior restroom

______19. Small interior dining room

______20. School cafeteria

______21. Caterer's banquet hall

______22. Basement dining room

______23. Enclosed patio dining area

Safeness

a. Safe
b. Unsafe

24. The most common sources of fires in food service establishments are ______________, ______________, and ______________.

25. ______________ may be used by the cook to put out minor grease fires.

26. Never use ______________ to put out a grease fire.

27. In treating a first-degree burn, place under ______________, running water.

28. In ______________ degree burns, the skin is partly destroyed and charring is present.

29. In a smoke-filled room, the freshest, coolest air is close to the ______________

30. For any type of severe weather, it is important to ______________.

31. The most common sources of weather information are ______________ and ______________.

32. Twenty-four-hour weather information can be provided by ______________.

33. A three- to five-minute, steady, high-pitched tone is called ______________.

34. The greatest hazard during a power failure is ______________.

35. An important precaution in event of power failure is clear, well-marked ______________.

36. Although they may be decorative, alternate light can be provided during a power failure by ____________________

37. List the three types of fires and what they include.
   a.
   b.
   c.

38. What purposes does seeking help in extinguishing a fire serve?
   a.
   b.

39. Describe the three types of burns.
   a.
   b.
   c.

40. List four common causes of fire.
   a.
   b.
   c.
   d.

ASSIGNMENTS:

I. Find out what kind of fire extinguishers are used in your place of employment. Describe the kind of fires each will extinguish, and how to use each extinguisher.

II. Design a fire escape route for your place of employment if one is not already available; and, with your employer's permission, post on walls in various parts of the building.

III. Determine the safest areas of the building in which your food service establishment is located. Make a plan for directing customers to the safe area in event of a tornado.

IV. Make a safety check of your food service establishment. Are exits clearly designated and well-lighted? Are any exits blocked or locked? Is alternate lighting available in event of power failure? Are fire extinguishers or automatic devices available and checked regularly? Does your employer have an evacuation plan for the business? Do all employees know emergency procedures for fire and weather-related emergencies?

GROUP WORK:

I. Compare the fire extinguishers used at your place of employment with the fire extinguishers used at other training stations. Which types of fire extinguishers are most commonly used in local food service establishments?

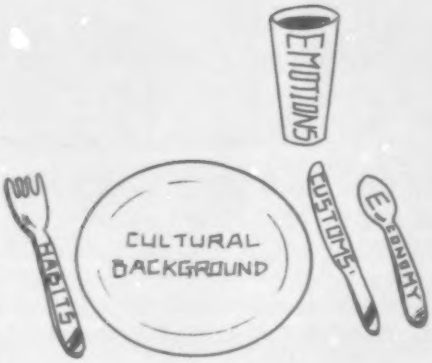
II. Invite the local fire department to demonstrate the correct use of a fire extinguisher and discuss fire safety.

UNIT IV-1

NUTRITION

SUBJECT: Factors Influencing Eating Behavior

TASK: 11. Use nutrition information in planning, preparing, and serving meals for persons of various ages.



OBJECTIVES: When you finish this lesson, you should be able to

a. explain the effects of emotions on eating habits
b. describe factors contributing to habits and customs
c. distinguish between food fads and food fallacies
d. analyze the effects food fads and food fallacies may have on one's health.

REFERENCES: Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 148-151.

Lewis, Dora S.; Peckham, Gladys C.; and Hovey, Helen S. *Family Meals and Hospitality.* New York, New York: Macmillan Publishing Co., 1972. pp. 8-10.

Food provides the body with the fuel it needs to function properly. Just as an engine cannot run without fuel, neither can the body function without food. An engine runs longer and better with proper types and amounts of fuel. The body also operates longer and more efficiently if provided with the amounts and types of food it needs.

Because people have both physical and emotional needs, people sometimes eat even though their bodies do not need the fuel. Emotional stress sometimes causes a person to eat in an effort to overcome unhappiness or nervousness. Food can serve also as a substitute for security, acceptance, or love. If food is used frequently as a substitute for other needs, health and vitality suffer.

Understanding the effects of emotions on eating habits is helpful in working with people in a food service establishment, hospital, nursing home, school, or day care center. Many times a person may refuse food or complain about it in order to gain attention or because it's one part of their day they feel they can control. The wise employee shows patience and understanding in working with such persons.

FOOD HABITS AND CUSTOMS

Families have different customs concerning meals and various foods. Cultural background largely determines food customs and practices. When working with people of different ethnic groups and economic levels, try to become acquainted with their food practices and customs. If their beliefs cannot be adhered to, try to show interest and understanding about their past routines.

Customs regarding the morning meal vary considerably. Some families completely skip breakfast; others eat a complete meal; still others eat anything that strikes their fancy.

Another custom that may vary is the time of day "dinner" is served. Some families have "dinner," the largest meal of the day, at noon. Others serve dinner in the evening.

Even the time for meals varies considerably. For example, some families eat early in the evening, whereas others eat quite late. Also, some families eat meals together while others eat individually at different times.

No matter how people differ in cultural or economic backgrounds, they have the same basic needs for nutrition. Knowledge and respect of various customs is an aid to working effectively with people.

FOOD FADS AND FALLACIES

Whether in a restaurant, cafeteria, school, hospital, nursing home, or other business, people must know that the food they buy and eat is safe and wholesome. They expect a fair price when they purchase the food. They also expect honesty in advertising, labeling, and packaging of the foods. The majority of business persons are *ethical* (honest and conforming to a standard of right behavior). However, there are a number of types of *fraudulent* (misrepresenting or tricky) deceptive schemes used by dishonest salespersons and business persons.

Fraudulent schemes are less likely to influence food service employees who are aware of the approaches used in the promotion of these schemes. A *fad food* is said to have "magical" powers which are based on unreliable information that has no scientific support. A *fad diet* is not based on sound nutrition. It is a shortcut to losing weight. Although short-term results are often obtained, a fad diet can be harmful because it deprives the dieter of necessary nutrients.

Everyone must learn to distinguish between facts and fads in products and information available. *Food quackery* is one method used to take advantage of people. Operating primarily in the area of fad diets, the quack usually claims to have special foods, vitamins, formulas, gadgets, utensils, gimmicks, and literature to sell. The quack claims these "special" foods will steady your nerves; cause weight loss; or cure cancer, diabetes, arthritis, and most other illnesses. Quacks tend to attack the suffering patient and those who want to lose weight. They not only cause a tremendous waste of money, but they may endanger the lives of their followers also.

The "scare technique" is one method often employed by faddists and quacks in promoting the sale of health foods. They take the truth and twist it until the buyer feels his life depends on the product. They actually "scare" the customer into purchasing the product.

Older persons are especially susceptible to relying on "quacks." Many elderly persons are easily convinced that the "miracle" drugs and diets will keep them healthy. While the prescribed health foods or fad foods may not be harmful themselves, illness can occur if essential foods are neglected for a period of time.

The only answer to the problem of quacks and faddists is education. People of all ages should understand basic nutritional needs and the need for competent medical care. The food service employee needs an understanding of fads and fallacies in order to work with people who believe them. The food service employee's understanding must be clear enough that nutritious substitutes can be suggested for poor food choices. The food service employee must recognize also the strong emotional dependence people have on these fads and proceed carefully when a patient or customer has such feelings.

QUESTIONS:

1. A substitute often used for security, acceptance, or love is ________________________.
2. Claims about food based on unreliable information that has no scientific support are referred to as a(n) ________________________.
3. A food which is used regularly and faithfully and is said to have "magical powers" is referred to as ________________________.
4. A popular diet that is not based on sound nutrition is a(n) ________________________.
5. For a diet to be safe, it must provide ________________________.
6. Explain the term "scare technique" used by faddists and quacks.
7. Name the kinds of foods served by food services wishing to attract teenagers.
8. What are "seasonal preference" foods?
9. Define "hidden hunger."
10. List four things that usually influence eating habits.
    a.
    b.
    c.
    d.

ASSIGNMENTS:

I. Identify the ethnic groups served in your training station. Find out more about the food habits of persons in these groups by reading in the library, interviewing persons in these ethnic groups, and discussing the food habits of each ethnic group with your training sponsor.

II. Prepare a poster or wall chart showing common food fallacies. Display the poster or wall chart so other students will be alert to current food fallacies, particularly fad diets.

GROUP WORK:

I. Discuss the customs of various ethnic groups which each of you found in the readings or interviews you did for Assignment I.

II. Role play this situation: "A patient, age 68, is in the hospital for the first time. You are in charge of helping serve his meals. Because the schedule and meals are different from those to which he is accustomed, he is very unhappy." How would you handle this situation?

III. Give examples of situations in which you have seen food substituted for love, security, or acceptance. Share examples with other food service and dietary employees.

IV. Make up situations in which the following persons refuse to eat. Discuss different ways you could handle the situations.
   a. An elderly patient in a hospital
   b. A four-year-old child at a day care center
   c. A teenage patient in a hospital
   d. An elderly person at a rest home
   e. A customer in a restaurant who says the food is "not worth eating"
   Compare your solutions with those of other food service and dietary employees.

V. Discuss situations which you have observed that reflect food habits and customs of customers. Evaluate how you handled the situation and let class members suggest different solutions.

VI. Discuss different fad diets or food fallacies which persons at different training stations have encountered. Discuss factors which contribute to belief in these fad diets or food fallacies.

UNIT IV-2

NUTRITION

SUBJECT: Daily Food Guide

TASK: 11. Use nutrition information in planning, preparing, and serving meals for persons of various ages.

OBJECTIVES: When you finish this lesson, you should be able to

a. name the basic food groups
b. identify foods in each food group
c. describe the number of servings needed daily from each food group
d. evaluate diets using the basic food groups as a guide.

REFERENCES: Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 146-148, 176.

Lewis, Dora S.; Peckham, Gladys, C.; and Hovey, Helen S. *Family Meals and Hospitality.* New York, New York: Macmillan Publishing Co., 1972. pp. 5-7.

Government nutrition experts have divided foods into basic food groups to help individuals choose foods wisely. People can still choose a diet inadequate in certain nutrients from the Daily Food Guide, but the guide is a simple and accurate beginning guide to follow. Therefore, if you choose wisely from the Daily Food Guide, you will consume plenty of nutrients for energy, growth, and body repair.

The food service employee needs to understand the Daily Food Guide. Knowledge of the basic food groups aids in meal planning, preparation, and service. The number of servings of various foods, as well as substitutes for foods within each group, serve as a guideline in planning meals. Nutritious snacks can be based also on the basic food groups.

The Daily Food Guide should serve also as a guide for personal eating habits. To be successful on the job, a person must maintain good personal health and a high level of energy. The best way to do this is to follow the Daily Food Guide in personal eating habits. Employees who eat a balanced diet feel good; therefore, they do a better job.

The foods included in each group of the Daily Food Guide and recommended amounts for a serving are given on the following pages.*

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*Adapted from United States Department of Agriculture, *Food.* Washington, D.C.: United States Government Printing Office, 1979. pp. 6-9.

MILK AND CHEESE GROUP

Includes:

Milk–fluid whole, evaporated, skim, dry, buttermilk, concentrated
Cheese–cheddar, natural or processed, cottage, cream
Ice cream

Recommended Amounts:

2 8-ounce cups daily for adults; 4 8-ounce cups for teenagers; and 2 to 3 8-ounce cups for children under nine; 3 8-ounce cups for children 9 to 12. Cheese and ice cream may replace part of the milk. The amount needed to replace a serving of milk is figured on the basis of calcium content. The following scale shows in terms of calcium the equivalent portions of cheese and ice cream to those of milk.

1 ounce cube cheddar or Swiss cheese = ½ cup milk
½ cup cottage cheese = ¼ cup milk
½ cup ice cream or ice milk = 1/3 cup milk
1 cup plain yogurt = 1 cup milk

MEAT GROUP

Includes:

Beef, veal, lamb, pork, and variety meats such as liver, heart, and kidney
Poultry and eggs
Fish and shellfish
As alternates, occasionally, dry beans, dry peas, lentils, nuts, peanuts, peanut butter

Recommended Amounts:

2 servings daily

Count as a Serving

2 to 3 ounces of lean cooked meat, poultry, or fish (all without bone)
1 egg
½-3/4 cup cooked dry beans, dry peas, soybeans, or lentils
2 tablespoons peanut butter
¼ to ½ cup nuts, sesame seeds, or sunflower seeds = 1 oz. of meat, poultry, or fish

VEGETABLE AND FRUIT GROUP

Includes:

All vegetables and fruits. Those valuable as sources of vitamins A and C are emphasized.

Recommended Amounts:

4 servings daily, including servings from the following three categories.

1. One serving of a good source of vitamin C or two servings of a fair source.

Good Sources of Vitamin C

Grapefruit
Grapefruit juice
Orange
Orange juice
Cantaloupe
Mango
Guava
Papaya
Raw strawberries
Broccoli
Brussels sprouts
Green pepper
Sweet red pepper

Fair Sources of Vitamin C

Honeydew melon
Lemon
Tangerine
Tangerine juice
Watermelon
Asparagus tips
Raw cabbage
Collards
Garden cress
Kale
Kohlrabi
Mustard greens
Potatoes, white and sweet, cooked in the jacket
Spinach
Tomatoes
Tomato juice
Turnip greens

2. One serving, at least every other day, of a dark-green or deep-yellow vegetable, or the fruits named for vitamin A.

Apricots
Broccoli
Cantaloupe
Carrots
Chard
Collards
Garden cress
Kale
Mango
Persimmon
Pumpkin
Spinach
Sweet potato
Turnip greens and other dark green leaved vegetables
Winter squash

3. Choose the remaining servings from this list of other vegetables and fruits to make a total of at least 4 servings for the day; or choose additional servings from the above lists of fruits and vegetables.

Asparagus
Beans, snap or green
Beans, lima
Beets
Cabbage, cooked
Cauliflower
Celery
Corn, sweet
Eggplant
Lettuce, head
Onions
Parsnips
Peas, green
Potato, Irish
Rhubarb
Rutabagas
Cherries
Grapes
Sauerkraut
Squash, summer
Turnips
Apples
Bananas
Berries
Peaches
Pears
Pineapple, canned
Pineapple juice, canned
Plums
Prunes
Raisins

Count As a Serving:

½ cup of a cooked vegetable or fruit or juice; 1 cup of a raw vegetable, such as a salad; or a portion as usually served, such as 1 medium apple, banana, orange, or potato; ½ of a medium grapefruit or cantaloupe; or the juice of 1 lemon.

BREAD AND CEREAL GROUP

Includes:

All breads and cereals that are whole grain, *enriched* (vitamins and minerals added in processing to improve nutritive value), or *fortified* (nutrients lost during processing are replaced).

Breads
Cooked cereals
Ready-to-eat cereals
Cornmeal
Crackers
Parboiled rice and wheat
Rice
Rolls
Muffins
Flour
Grits
Macaroni
Spaghetti
Noodles
Waffles
Rolled oats
Biscuits
Pancakes

Recommended Amounts:

4 servings daily

Count As a Serving:

1 slice of bread
1 ounce ready-to-eat cereal
½ to 3/4 cup cooked cereal, cornmeal, grits, macaroni, noodles, rice, or spaghetti

FATS, SWEETS, AND ALCOHOL GROUP

The USDA's Daily Food Guide provides guidelines for the kinds and amounts of foods that make up a nutritious diet based on what is known today. Because nutrition science is in a growth phase, the guide may change as new understandings of the relationship of nutrition and health develop. In 1979, a fifth group, Fats-Sweets-Alcohol,* was added to the Daily Food Guide. This group provides many calories and little in the way of other nutrients. Included in this fifth group are foods like butter, margarine, mayonnaise and other salad dressings, and other fats and oils; candy, sugar, jams, jellies, syrups, sweet toppings, and other sweets; soft drinks and other highly-sugared beverages; and alcoholic beverages, such as wine, beer, and liquor. Also included are refined but unenriched breads, pastries, and flour products. Some of these foods are used as ingredients in prepared foods or are added to other foods at the table. Others are just extras.

No serving sizes are defined because a basic number of servings is not suggested for this group. These products, with some exceptions such as vegetable oils, provide mainly calories. Vegetable oils generally supply vitamin E and essential fatty acids.

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*Adapted from United States Department of Agriculture, *Food.* Washington, D.C.: United States Government Printing Office, 1979. pp. 4-10.

Fats and oils have more than twice the calories, ounce for ounce, that protein, starches, or sugars do; but fats and oils can keep hunger pangs away longer. Pure alcohol has almost twice the calories per ounce that protein, starches, or sugars do. However, few alcoholic beverages are 100 percent alcohol. Generally, the higher the alcohol content, the higher the calories, ounce for ounce. Unenriched, refined bakery products are included because, like other foods and beverages in this group, they usually provide relatively low levels of vitamins, minerals, and protein when compared with their high calorie count.

QUESTIONS:

1. The number of servings recommended daily for the Milk and Cheese Group are:
______________ adults ______________ children under 9
______________ teenagers ______________ children 9-12.

2. The number of servings recommended daily for the Bread and Cereal Group is:
______________.

3. The number of servings recommended daily for the Meat, Poultry, Fish, and Beans Group is:
______________.

4. The number of servings recommended daily for the Vegetable and Fruit Group is:
______________.

5. The job of choosing the best foods daily for good health is simplified by use of the
______________.

6. The study of supplying the body with nutrients through the food we eat is called
______________.

7. Many calories and few nutrients are obtained from foods in the ______________
Group.

In Items 8-20, match each food with the correct food group. Place the letter of the food group in the blank to the left of each food. The letters may be used more than once.

Food

_____ 8. Cottage cheese

_____ 9. Lentils

_____10. Liver

_____11. Jam

_____12. Broccoli

_____13. Rolled oats

_____14. Chicken

_____15. Ice cream

_____16. Soft drinks

_____17. Noodles

_____18. Cabbage

_____19. Flour

_____20. Candy

Food Group

a. Milk and Cheese Group
b. Meat, Poultry, Fish, and Beans Group
c. Vegetable and Fruit Group
d. Bread and Cereal Group
e. Fats, Sweets, and Alcohol

In Items 21-26, circle T if the statement is true and F if the statement is false.

T F 21 We should eat 4 or more servings from the Meat, Poultry, Fish, and Beans group each day.

T F 22. Eggs are included in the Meat, Poultry, Fish, and Beans group.

T F 23. The amount of nutrients you need changes at different periods of your life.

T F 24. By using the Daily Food Guide, you will always get an adequate diet.

T F 25. Peanut butter and ice cream are poor sources of nutrients.

T F 26. All nutrients essential to body growth and repair can be obtained by taking vitamins.

ASSIGNMENTS:

I. On your answer sheet, draw a chart similar to the example and record under the correct food group the number of servings you eat at each meal during the next three days. Do not change your regular diet habits (omit weekends).

INDIVIDUAL DIET STUDY

Day	Milk and Cheese	Meat, Poultry, Fish, and Beans	Vegetables and Fruits	Bread and Cereal	Fats, Sweets, and Alcohol
First					
Breakfast:					
Lunch:					
Dinner:					
Snack:					
Total Servings:					
Second					
Total Servings:					
Third					
Total Servings:					

II. Review your diet study. Record the number of servings you ate each day under the appropriate group. Turn this in to your teacher.

FOLLOW-UP CHART

Day	Milk and Cheese	Meat, Poultry, Fish, and Beans	Vegetables and Fruits	Bread and Cereal	Fats, Sweets, and Alcohol
First					
Second					
Third					

Use the Daily Food Guide to analyze your diet study. Answer the following questions.

1. a. In which food groups did you have the recommended number of servings?

   b. In which food groups were you lacking the recommended number of servings?

2. Make suggestions or develop a plan for improving your diet by:
   a. listing foods which need to be added to your diet.
   b. reducing excessive calories or empty calories.

III. Prepare a poster illustrating the Daily Food Guide. Include number of servings needed. Ask your training sponsor if you may display it at your place of employment. If not, display it in the classroom.

GROUP WORK:

I. In small groups, plan a day's menu for each of the following situations. Use the Daily Food Guide in planning the menus.
   a. Children at a day care center
   b. The teenagers in your class
   c. Elderly patients in a nursing home

II. Participate with other food service employees in a role play situation called "Judge and Jury." List the foods you ate yesterday for breakfast, lunch, dinner, and snacks. Select the following characters for the role play: judge, jury, defense attorney, district attorney, defendant, and witnesses. The judge reads the charges against the defendant. (Example: The defendant is accused of eating ____________________) The defense attorney pleads the defendant's case, explaining why he or she ate as he or she did. The district attorney points out ways the defendant disobeyed the law of the Daily Food Guide. The jury must decide the case using the following criteria: required servings eaten in all of the food groups = acquittal; three of the groups = warning; two of the food groups = two-year sentence; one of the food groups = three-year sentence; none of the food groups = life sentence.

III. With other food service and dietary employees, play a game using cards with pictures or words representing various foods which may be eaten during a day. Each player is dealt nine cards. Of the remaining cards, turn the top card face up and lay it on the table to represent a discard pile; place the other cards remaining in the stack face down alongside the discard pile. Each player in turn draws one card and discards one card face up; the player may choose to draw the top card in the stack or the top card in the discard pile. The object of the game is to collect cards representing foods to be included in two proposed menus, one for dinner and one for either breakfast or lunch, meeting the requirements of the Daily Food Guide. When a player has two complete menus, the player places her/his cards face up, and the group determines whether or not the menus are satisfactory. From cards held by all players, the group then plans the menu for the remaining meal to complete the number of servings required daily in each of the food groups.

UNIT IV-3

NUTRITION

SUBJECT: Nutrients

TASK: 11. Use nutrition information in planning, preparing, and serving meals for persons of various ages.

OBJECTIVES: When you finish this lesson, you should be able to

a. identify nutrients
b. describe the functions of nutrients in the body
c. relate nutrients to specific food sources
d. summarize the importance of water in the body
e. explain that nutrients are essential for human health.

REFERENCE: Lewis, Dora S.; Peckham, Gladys C.; and Hovey, Helen S. *Family Meals and Hospitality.* New York, New York: Macmillan Publishing Co., 1972. pp. 24-39.

WHAT ARE NUTRIENTS?

The body needs *nutrients* because they nourish the body. Nutrients are chemical substances found in food. Each nutrient has a specific use in the body, but no nutrients can function independently. Nutrients build and repair body tissues, furnish heat and energy to the body, and regulate body processes. The nutrients needed by the body include proteins, carbohydrates, fats, vitamins, and minerals. Research indicates that all people need these same basic nutrients but in different amounts. Age, sex, environment, body size, level of activity, and nutritional status influence the quantity of nutrients needed for each individual to maintain a strong, healthy body.

Roughage, made up of indigestible fibers containing cellulose, is needed in the diet for good health. Cellulose, a carbohydrate, provides bulk to the diet and aids in the elimination of body wastes. Major sources of cellulose include green leafy vegetables, stalks of vegetables, seeds and skins of fruits and vegetables, and whole-grain cereals.

Although water is not a nutrient, the average person needs six to eight glasses of water each day. Water makes up most of our blood, which carries nutrients to the cells of the body. Water aids digestion and absorption of food, regulates body temperature, lubricates moving parts of the body, and aids in the elimination of body wastes.

Nutrients are sensitive to light, heat, and air. Therefore, storage, handling, cooking, and holding foods must be done in ways to prevent nutrient loss. To keep nutrients from being lost, the following rules should be observed:

1. Store foods quickly, under ideal conditions for the type of food, and at the proper temperature.
2. Prepare foods quickly.
3. Cook foods as directed at the proper temperature for the correct amount of time. Avoid high temperatures and overcooking.
4. Avoid holding foods at room temperature.
5. Store, refrigerate, or freeze leftovers as directed in appropriate containers and at the proper temperatures. Label, date, and use all leftovers as soon as possible.

QUESTIONS:

1. Name the two classifications of carbohydrates.
   a.
   b.
2. List three nutrients that supply energy.
   a.
   b.
   c.
3. Give three examples of foods that contain complete proteins.
   a.
   b.
   c.
4. Name the most serious disease caused by nutritional deficiency in the United States today.
5. The science of relating food to growth and health is ____________________.
6. Proteins, carbohydrates, fats, vitamins, and minerals are called ____________________
7. The primary purpose of protein is ____________________.
8. Nutrients manufactured in plants containing large amounts of sugar and starch are ____________________
9. Each protein is composed of hundreds of small molecules called ____________________.
10. Nutrients from plant and animal sources providing the most concentrated source of energy are ____________________
11. Vitamins A,D,E, and K are called ____________________.
12. Bile salts, which are necessary for digestion, are formed with the aid of ____________________
13. Nutrients from animal products such as meat, poultry, cheese, milk, fish, and eggs are referred to as ____________________.
14. Inorganic salts that aid in building the bony framework of the body are ____________________
15. Vitamins which dissolve in liquids are ____________________.
16. Minerals found in minute quantities in the body are referred to as ____________________.
17. An effective way to provide iodine in the body and to prevent goiter is the use of ____________________.
18. Something not considered a basic nutrient but which is necessary for good health is ____________________

19. Lack of sufficient food and essential nutrients in the diet results in ______________________.

20. Roughage, which provides bulk in the diet, contains ______________________.

21. ______________________ can occur in children if their diet is deficient in calcium and phosphorus.

22. ______________________ often develops due to an iron deficiency.

In Items 23-34, match the nutrient with the function associated with it. Place the letter of the nutrient in the blank to the left of each function. Use each letter only once.

Function

______23. Helps eyes adapt to darkness; promotes unblemished skin.
______24. Prevents goiter; needed for proper functioning of thyroid gland.
______25. Builds strong, straight bones; helps in the clotting of blood; contributes to strong teeth and normal heartbeat.
______26. Helps blood to clot.
______27. Contains sugar and starch, which are changed into a form usable as energy.
______28. Helps the body use calcium and phosphorus for strong bones and teeth.
______29. Furnishes building materials for growth and repair of body tissues.
______30. Aids normal red blood cells formation.
______31. Builds red blood cells.
______32. Helps burn food in the body; prevents beriberi.
______33. Builds bones and teeth; aids in clotting of blood.
______34. Helps to form healthy gums and teeth.

Nutrient

a. Calcium
b. Carbohydrate
c. Iodine
d. Iron
e. Phosphorus
f. Protein
g. Vitamin A
h. Vitamin B Complex
i. Vitamin C
j. Vitmain D
k. Vitamin E
l. Vitamin K

In Items 35-38, circle T if the statement is true and F if the statement is false.

T F 35. One single food can provide all essential nutrients.

T F 36. The body can store supplies of protein.

T F 37. Cholesterol is in the blood of all humans.

T F 38. Approximately 3/4 of the body weight is water.

ASSIGNMENT:

I. Prepare a "word-a-gram" using the nutrients. Below is an example using states: (Try to use all of the nutrients.)

```
                              N
U N I T E D           S T A T E S
      E                       W
      X
      A R K A N S A S         M
      S             O         E
                    U         X
                    T     A R I Z O N A
                    H         C
                          F L O R I D A
                    D
                    A
                    K
                    O
                    T
                    A
```

GROUP WORK:

I. Prepare a crossword puzzle using the basic nutrients. Prepare an answer sheet. Exchange puzzles and work puzzles of classmates. Check answers by the answer sheets.

II. Play Jeopardy with other food service employees. Place a small bell on the desk. Divide into two teams. The leader calls out answers about the nutrients. The first person in line must run up, ring the bell, and give the answer in the form of a question. Example: Leader says, "Helps blood to clot." Team member should answer, "What does Vitamin K do?" Students may confer with team members before ringing the bell, but they must answer immediately after ringing. The leader should repeat the question for reinforcement.

UNIT IV-4

NUTRITION

SUBJECT:	Nutrition for Persons of Various Ages
TASK:	11. Use nutrition information in planning, preparing, and serving meals for persons of various ages.
OBJECTIVES:	When you finish this lesson, you should be able to a. describe the nutritional needs of persons of various ages b. summarize factors that determine an individual's need for food.
REFERENCE:	Lewis, Dora S.; Peckham, Gladys C.; and Hovey, Helen S. *Family Meals and Hospitality.* New York, New York: Macmillan Publishing Co., 1972. pp. 12-21, 112-121.

Activities, size and age, and stages of growth dictate an individual's need for food. The quantity of food needed is measured in terms of energy (calories). Building materials needed consist of proteins and minerals, especially calcium, phosphorus, magnesium, and iron. Vitamins are necessary to help our body use food for energy.

Energy needs of the body increase with body size and with activity. A minimum of energy is needed for the functioning of internal organs and maintaining muscle tone. Minimum energy needs are approximately 3000 calories in a young man ages 15-18 and 2100 calories in a young woman 15-18. Activities may increase energy needed by several hundred calories.

BABY AND MOTHER

Pregnancy causes hormone changes, increased *basal metabolism* (rate at which food is used by the body), increased fluid retention, increased absorption of certain nutrients, and changes in the digestive system. Weight gain should be gradual and controlled, according to doctor's recommendation.

The National Research Council recommends an increase in the consumption of protein, calcium, phosphorus, folic acid, and ascorbic acid during pregnancy. More vitamin A and vitamin D are needed also because they must be present for the body to absorb and use minerals. A slight increase is also recommended for daily intake of thiamine, riboflavin, and niacin. The present recommended amount of iron is 20 milligrams a day.

A diet suitable for a woman during pregnancy includes 6-8 ounces of meat, fish, or poultry (liver, weekly); 1 serving of dark-green leafy or deep-yellow vegetable; 1 medium potato; 2 servings of other vegetables (one vegetable should be raw); 5 slices of bread; 1 serving of enriched or whole-grain cereal; 2 servings of citrus fruits and 1 other fruit; 3 servings milk or cheese; 1 quart whole milk; and 1-2 eggs or the equivalent. The equivalent of 1-2 eggs is 1 ounce cheddar cheese; 1 ounce meat, fish, or poultry; ¼ cup cottage cheese; 2 tablespoons peanut butter; or ½ cup dried beans, peas, or soybeans. Other foods, such as desserts, can be eaten if needed for energy as long as you stay within your doctor's recommended calorie requirements.

The main difference between a pregnant woman's diet and that of her family is that she needs more milk and iron-rich foods. A good basic diet can supply the nutrients needed during pregnancy. However, most doctors prescribe vitamin or mineral supplements during pregnancy.

Newborn infants need higher levels of all nutrients in relation to their size than at any other age. This need is due to the infant's rapid growth and higher metabolic rate. Energy requirements of infants vary according to their size and activities.

Commercially-prepared formula or evaporated milk instead of fresh milk is generally used for feeding infants. A common formula using evaporated milk requires 3 ounces evaporated milk, 7 ounces water, and ½ ounce cane sugar. A supplement of 35 milligrams of vitamin C should be given daily. If Vitamin D has not been added to the milk, 400 International Units should be given daily. Modern infant formulas and bottle feeding are convenient and safe as substitutes for breast feeding. However, breast feeding has advantages too.

THE GROWING CHILD

When children learn to chew, it is no longer necessary to strain or mash their food. Striving toward independence, children like to eat with their hands. They may also have a smaller appetite. Parents often resort to pleading, bribing, scolding, or threatening children to get them to eat.

When working with children, make mealtime pleasant and routine. Have patience, but maintain complete control at all times. If children misbehave to the extent of disrupting the meal, they should be removed from the table and disciplined elsewhere.

If a child refuses to eat, offer food at mealtime without comments on the desirability of the food. After about 20 minutes, remove the plate and offer nothing else until the next meal. After the second or third day, even the most stubborn child will give in.

Amounts of nutrients needed by a preschool child are similar to those for a baby, although slightly higher. A suggested diet for a preschool child consists of 2-3 servings of vitamin D milk; 2 ounces of lean meat, fish, or poultry; ½ cup orange juice or some source of vitamin C; 1 egg; 2 slices of enriched bread or other cereal; ½ cup cooked yellow or green leafy vegetable. These amounts should be supplemented with other fruits, vegetables, butter or margarine, cereals, and simple desserts. The rest of the diet should *not* consist of "empty calorie" foods such as soft drinks and candy.

PREADOLESCENTS

The elementary age child needs more food than the younger child. This is a good time to encourage a child to try new and different foods. Good eating habits should be stressed during this time. Along with two or three servings of milk, the amounts of meat, bread, fruit, and vegetables should be increased as the child's appetite dictates.

ADOLESCENTS

Adolescence, occurring between the ages of 10 and 20 years, is a period of rapid growth and maturation. The formation of muscles, bone, and blood requires ample supplies of the building materials protein, calcium, and iron. Because of an increase in activity and a rise in basal metabolism, adolescents consume more food.

A suggested diet for an adolescent boy consists of 4 cups milk; 6 ounces of meat; ½ to 1 cup of orange juice; 4 slices of bread; ½ cup of a green or yellow vegetable; enriched cereals, fruits, and vegetables. Ice cream, peanut butter, cookies, and other nutritious snacks may complete the diet. The suggested diet is similar for a teenage girl, although she may consume only 3 cups of milk. A teenage girl needs more iron-rich foods than a teenage boy.

The overweight adolescent needs the same kinds of foods, but in smaller amounts. Instead of a "crash diet," the goal should be to develop eating habits which the adolescent can live with indefinitely.

ADULTS

As growth ends and maturity is reached, the need for building materials declines, as does basal metabolism. Compared with adolescents, an adult has a lower need for protein and calcium; therefore, 2 cups of milk is usually sufficient. An adult woman needs more iron-rich foods than an adult man.

The major nutritional problem at this stage is weight control. A person should maintain their normal weight at age 25 for the rest of their life. As you add years, you need to subtract calories. In choosing foods, a person needs to include meats, fruits, vegetables, milk, cereals, and bread. Things to avoid include pastries, rich cakes, gravies, nuts, candies, sugar, soft drinks, alcoholic beverages, and fried foods.

ELDERLY PERSONS

Nutrients supplied throughout the years affect the aging process and resistance to disease. As aging occurs, basal metabolism and activities slow down, resulting in a decreased energy need. The average man or woman aged 55-75 needs 300 to 400 fewer calories per day than those needed during the 35-55 year period. Older persons need smaller amounts of the B-complex vitamins. Because there is no evidence that cellular changes affect the need for nutrients, the needs for protein, calcium, and vitamins A, C, and E remain the same.

Many elderly people require special diets for various health conditions. The blender is useful in making foods easier to eat.

Helping elderly persons establish and maintain a nutritious diet is very important. Often, coaxing and encouragement are necessary to get them to eat.

To provide the nutrients throughout the stages of life, a person needs a daily pattern which is as habitual as dressing, teeth brushing, and other routine activites.

QUESTIONS:

1. An individual's need for food is determined by ____________, ____________, ____________, and ____________
2. The amount of heat required to raise the temperature of 1,000 grams of water 1 degree centigrade is called a(n) ____________

3. The chemical changes that take place as food is used by the body to produce energy are referred to as ____________________.

4. The quantity of food consumed is measured in terms of ____________________

5. The main difference between a pregnant woman's diet and the diet of her family is her increased need for ____________________ and ____________________

6. Adolescents between the ages of 10 and 20 years consume more food than any other age group because of ____________________ and ____________________.

7. The major nutritional problem for adults is ____________________.

8. Because the older person has cut down on physical activity, their calorie allowance is ____________________ than for a younger person.

9. New foods should never be given to children after a(n) ____________________ or following a(n) ____________________.

ASSIGNMENTS:

I. Find pictures of "empty calorie" snacks. Find pictures of "nutritious" snacks. Use the pictures to make a poster or bulletin board.

II. Choose the group with which you are most concerned at your training station:
Group 1 – expectant mothers
2 – infants
3 – growing children
4 – preadolescents
5 – adolescents
6 – adults
7 – elderly persons
Find a picture of this age group; prepare a poster which explains their basic nutrition needs.

GROUP WORK:

I. Combine all posters to make a bulletin board or display; or ask your employer's permission to hang your poster in your training station.

UNIT IV-5

NUTRITION

SUBJECT: Planning Nutritious Meals

TASK: 11. Use nutrition information in planning, preparing, and serving meals for persons of various ages.

OBJECTIVES: When you finish this lesson, you should be able to
a. summarize the factors that should be considered in advance meal planning
b. explain the steps for meal planning
c. use the menu planning form when planning meals
d. explain the menu form for modified diets
e. describe the use of cycle menus.

REFERENCES: Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 151-154.

Lewis, Dora S.; Peckham, Gladys C.; and Hovey, Helen S. *Family Meals and Hospitality.* New York, New York: Macmillan Publishing Co., 1972. pp. 106-112.

MEAL PLANNING

Meal planning is not one of the usual duties of entry level dietary aides or food service employees. However, occasions do arise that make it necessary for the beginning employee to have a basic knowledge of nutrition and meal planning to be able to relate food needs to the welfare of the customers and patients. Diners in restaurants, cafeterias, schools, nursing homes, hospitals, and other food service establishments may ask the food service employee for suggestions when they are selecting their food. The food service employee in a nursing home, hospital, child care center, cafeteria, or restaurant may make suggestions for low-calorie items, low-cholesterol items, children's dishes, appropriate desserts, snack items, or substitutions for food items on the menu. In some situations, the training sponsor may ask the food service employee to assist in the planning of meals. Because of these factors it is important for the food service employee to be able to plan menus and assist others in the selection of nutritious, enjoyable meals. Finally, this knowledge may serve as a basis for understanding therapeutic diets.

Good meal planning begins with a well-planned, written menu. Well-planned meals look attractive, provide the necessary nutritional requirements, satisfy the tastes and needs of the individual, and are within the budget of the institution.

Advance planning is essential to ensure that the foods needed for health are included in each day's meals. Menus can be varied even when a tight control must be kept on food costs. In addition, planning allows the most efficient scheduling of employees' time.

How far in advance menus are planned and written may vary, but one week is the minimum time recommended. Advanced planning for two, three, or four weeks is often convenient. If menus are planned in advance for longer periods of time, substitutions may be necessary if a selected food is not available.

The following steps for meal planning make the job easier.

1. Set aside a definite time to plan and write menus.
2. Have a quiet place to work. The job is harder and takes longer if there are frequent interruptions. Have a desk and file for previous menus and records.
3. Have your pencil, eraser, paper, recipe books, and other tools at hand.
4. Review the menus for at least the previous week.
5. Consider the foods that are available according to both season and supply.
6. Know what foods are on hand in the storeroom, the refrigerator, and the freezer.
7. Use a variety of methods of preparation during the week.
8. Include recommended servings from food groups listed in the Daily Food Guide in selecting food items for the menus.

Providing bedtime nourishment is important for patients in a nursing home and in some hospitals. Plan a bedtime nourishment for each day. Select the bedtime nourishment from such items as milk, fruit or juice, crackers, and other food needed to complete nutritional intake for the day.

MENU PLANNING FORM

Another helpful device for meal planning is the menu planning form. The form lists each meal and the types of foods to be included in it. See the sample menu planning form on p. 105. Follow this menu planning form to be sure the needed foods are included in the daily diet.

With the food groups listed in the Daily Food Guide and the menu planning form as aids, you can take the first step toward meal planning. A few extra touches in menu planning take little time or money but add to the enjoyment of meals. For example, holidays offer opportunities to add interest to meals since certain foods are especially appropriate for some holidays. Use table or tray decorations to celebrate special occasions. Some holidays to remember are Valentine's Day, Washington's Birthday, St. Patrick's Day, Easter, Independence Day, Rosh Hashanah, Halloween, Thanksgiving, Hanukkah, and Christmas. Birthdays are important too. Many college dormitories, children's nursery schools, and nursing homes provide a cake for each person's birthday. Use either a traditional birthday cake or a cupcake. Recognition of the individual's birthday is what counts.

DIET MODIFICATIONS

For various reasons throughout all stages of life, a person may need a modified diet. The modified diet is planned from the general diet, with only the substitutions that are necessary. Planning modified diets is not one of the duties of most food service employees. However, the food service employee should understand how a menu for a modified diet is planned from a regular menu. A trainee in any type of institution which provides specialized diets for its residents or patients should be aware of the extreme importance of following prescribed diets strictly. If a patient is given food which is not on his or her diet, serious health problems or a lawsuit could result.

When working with patients in hospitals, persons in rest homes, or children, consider their emotions in presenting diets to them. Sudden changes without adequate emotional preparation may cause serious problems. Some substitutions may be made within restrictions of the patient's diet. When possible, present a choice of foods acceptable within the diet. The menu on p. 105 illustrates various modified diets planned from the general diet.

MENU PLANNING FORM*

Day of Week Date

BREAKFAST

Fruit or juice
Cereal and/or eggs
Milk
Toast
Butter or margarine
Beverage

LUNCH

Meat, fish, or poultry
Potato or substitute
Vegetable
Salad (optional)
Bread
Butter or margarine
Dessert
Milk
Beverage

DINNER

Soup, juice, fruit (optional)
Main dish–including proteins
Vegetable and/or salad
Bread
Butter or margarine
Dessert
Milk
Beverage

PLANNED BEDTIME NOURISHMENT

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*U.S. Department of Health, Education, and Welfare. *A Guide to Nutrition and Food Service.* Washington, D.C.: U.S. Government Printing Office, 1971.

CYCLE MENUS

Planning cycle menus is not one of the normal duties of the entry-level dietary aide or the food service employee. However, the beginning employee should understand how a cycle menu works and why it is used in some food service establishments.

Cycle menus are a set of carefully planned menus. They cover a period of three to six weeks. When the period is completed, the cycle is repeated again. Because the availability of food varies with the seasons, a different set of cycle menus may be developed for winter, spring, summer, and fall.

Cycle menus save time in menu planning. Once they are set up, they can be used over and over with minor changes to allow for any unexpected development. Cycle menus improve purchasing procedures, provide better use of employees' time, and help standardize food preparation procedures.

Cycle menus do not mean an end to menu planning. Before using each menu of the cycle, the menu should be reviewed to determine whether any changes are needed. It is possible that a food selected for a certain day may not be available and a substitution will need to be made. A change in menus may be necessary when a holiday occurs.

As the menus are used, a record should be kept of their acceptance, the recipes, the amounts of food prepared and left over, and other useful information. This information aids in perfecting the menus in each cycle.

The first step in developing cycle menus is to decide on the length of the cycle. It must not be so short that the menus are repeated too often. A cycle of three weeks is usually the shortest possible. Four, five, or six weeks may be better. The same steps are used in planning cycle menus as those for any menu. Cycle menus for the most frequently prescribed modified diets may be developed to accompany regular menus.

SCHOOL CAFETERIA MENUS

Planning school cafeteria menus is not one of the normal duties of the beginning food service employee. However, the food service employee should understand how a school cafeteria menu works.

The major goal of all school cafeteria programs is to serve attractive, nutritious, and low-priced meals. Menu planning plays a very important role in the operation of a school cafeteria program. Menus must meet the federal government's Type A requirements, which are used as a guide for planning nutritionally balanced meals for children. The requirements provide a framework to meet at least one-third of the student's daily dietary needs. The National School Lunch Regulations state that the Type A lunch and school breakfast program should consist of a minimum of the food components in the amounts indicated in Figure 1. The kinds and amounts of foods listed are based on the dietary needs of 10- to 12-year-old children.

Proper nutrition is the main concern in the meal planning, preparation, and service in the school cafeteria programs. When planning nutritious meals for school programs, the food groups listed in the Daily Food Guide are a very important aid. The foods listed in the Type A lunch and breakfast programs are taken from the Daily Food Guide.

Meals must be acceptable to the students also. Thus, it will be important for the meal planner to focus on the quality, appearance, and appeal of the food that is to be served in the school programs. The planner should include familiar foods and consider contrasting colors, textures, flavors, sizes, and shapes of the foods in a meal. Thus, quality of the meals depends on the creativity, knowledge, and ability of the menu planner.

SCHOOL BREAKFAST PROGRAM

Meat & Alternate		Vegetables & Fruits		Bread		Fortified Butter or Margarine		Milk	
Amount	Food	Amount	Food	Amount	Food	Amount	Food	Amount	Food
1 oz.	meat, fish, or poultry	½ c.	fruit or	1	bread or			½ pt.	fluid milk
1 oz.	cheese	½ c.	full-strength fruit or vegetable juice	3/4 c.	cereal or equivalent combination				
2 T.	peanut butter or equivalent combination								

Frequently served supplements: honey, fortified margarine, butter, jam, vitamin C foods

TYPE A LUNCH

Meat & Alternate		Vegetables & Fruits		Bread		Fortified Butter or Margarine		Milk	
Amount	Food	Amount	Food	Amount	Food	Amount	Food	Amount	Food
2 oz.	lean meat or poultry or	3/4 c.	2 or more vegetables or fruits or both	1	whole-grain or enriched bread,	1 t.	butter or fortified margarine	½ pt.	fluid milk
2 oz.	cheese or			1	cornbread, biscuits, rolls, or muffins				
1	egg or								
½ c.	cooked beans or dry peas or								
4 T.	peanut butter								

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*U.S. Department of Agriculture. *A Menu Planning Guide for Type A School Lunches.* Washington D.C.: U.S. Government Printing Office, 1966.

FIGURE 1

MENU FORM FOR MODIFIED DIETS*

Form No. ____________________ Date ____________________

	REGULAR MENU	SOFT	LOW-CALORIE	BLAND	LOWFAT
Breakfast	Orange juice	→	→	→	→
	Cream of wheat	→		→	→
	Fried egg	Soft-cooked egg	Soft-cooked egg	Soft-cooked egg	Soft-cooked egg
	Toast	→	→ 1 slice	→	→
	Jelly	→		→	→
	Milk	→	→ Skim	→	→ Skim
	Coffee				
Lunch	Baked Ham	Beef Patty	→	Beef Patty	Beef Patty
	Glazed sweet potato	Mashed potato		→	→
	Buttered peas	→	→ Plain peas	→ Puréed	→
	Endive salad/French Dressing		→ Lemon wedge		→ Lemon wedge
	Bread	→	→ ½ slice	→	→
	Butter				1 pat
	Pineapple ice cream	Vanilla ice cream	Cantaloupe	Vanilla ice cream	Cantaloupe
Dinner	Vegetable soup	→	→		Consommé
	Welsh rarebit on rusk	→	Sliced chicken	Sliced chicken	Sliced chicken
	Buttered spinach	→	→	→ Puréed	→
	Sliced tomato salad				
	Rolls	Bread	Bread 1 slice	Bread	→
	Butter	→	→	→	
	Date bars	Baked custard	Peaches	Peaches	Peaches
	Milk	→	→ Skim	→	→ Skim

The regular menus for the day are listed in the left hand column. The arrows in other columns indicate the foods which can be taken from the regular menu for specific modified diets.

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*U.S. Department of Health, Education, and Welfare. *A Guide to Nutrition and Food Service.* Washington, D.C.: U.S. Government Printing Office, 1971. p. 40.

QUESTIONS:

1. Using the foods circled on the menu below, evaluate this menu by placing each food in the proper food group on the chart on the next page.

MENU

BREAKFAST
CYCLE I MONDAY

[✓ Orange Juice] Apple Juice
Oatmeal [✓ Dry Cereal]
[✓ Scrambled Eggs] Poached Eggs
[✓ Bacon]
Sweet Roll

Beverage:
Coffee Tea Iced Tea Postum
Hot Chocolate Sanka [✓ Milk] Skim Milk
Chocolate Milk Buttermilk Cream
Lemon

Bread:
White Whole Wheat

Toast:
White [✓ Whole Wheat] Melba Toast
Butter Jelly

LUNCH
CYCLE I MONDAY

[✓ Fried Chicken Breast] Barbecue on Bun
[✓ Buttered Rice]
[✓ Buttered Squash] Lima Beans
Fruit Salad [✓ Tossed Salad]
[✓ Lemon Cake Pudding]

Beverage:
Coffee Tea [✓ Iced Tea] Postum
Hot Chocolate Sanka Milk Skim Milk
Chocolate Milk Buttermilk Cream
Lemon

Bread:
White Whole Wheat [✓ Hot Bread]
Crackers Melba Toast Butter Jelly

DINNER
CYCLE I MONDAY

Baked Ham [✓ Italian Spaghetti]
Potatoes Au Gratin
[✓ Asparagus]
Sliced Tomatoes [✓ Cottage Cheese]
[✓ Fresh Fruit Ambrosia] Peach Cobbler

Beverage:
Coffee Tea Iced Tea Postum
Hot Chocolate Sanka [✓ Milk] Skim Milk
Chocolate Milk Buttermilk Cream
Lemon

Bread:
White Whole Wheat [✓ Hot Bread]
Crackers Melba Toast [✓ Butter] Jelly

Meal	Milk & Cheese	Meat, Poultry, Fish, & Beans	Vegetables & Fruits	Breads & Cereals	Fats, Sweets, & Alcohol
Breakfast					
Lunch					
Dinner					

2. If this menu is for an adult male on a general diet in a hospital, were adequate amounts of foods from each group included in the menu?

3. List five factors which determine the variety and the number of selections on a menu in the food service industry.
   a.
   b.
   c.
   d.
   e.

4. List four characteristics of a well-planned meal.
   a.
   b.
   c.
   d.

5. The major goal considered by a menu planner for schools should be the serving of meals that are
   a.
   b.
   c.

6. When planning meals for a nursing home, in addition to three balanced meals you should include ______________________

7. An aid to meal planning which lists each meal and the types of food to be included in it is called a ______________________.

8. Modified diets are planned from the ______________________

9. A set of carefully planned menus that are used, then repeated, over a three- to six-week period is referred to as ______________________.

10. The school cafeteria program meets ______________________ of a student's daily dietary needs.

11. The requirements of school meals are based on the needs of the ______________________ year-old child.

In Items 12-15, place an X in the blank by the letter of the phrase that best completes the sentence.

12. Mr. Jones ordered a beef patty, mashed potato, bread, butter, and vanilla ice cream. He told Sally, the food service employee, that he was on a bland diet and asked her to suggest a vegetable. Which vegetable should Sally suggest?
    _____ a. Buttered spinach
    _____ b. Puréed peas
    _____ c. Glazed sweet potato

13. Joe, a food service employee in a child care center, is planning an afterschool snack for Judy, age 7, and Tommy, age 9. Which item would help to meet their daily food requirements?
    _____ a. Ice cream soda
    _____ b. Potato chips
    _____ c. Candy bar

14. Mrs. Thomas has difficulty chewing and has asked Jim to suggest an apple dessert for her meal. Which dessert should Jim suggest?
    _____ a. Raw apple
    _____ b. Baked apple
    _____ c. Candied apple

15. While assisting her training sponsor in meal planning for the patients in the nursing home, Nancy planned a menu of baked white fish, scalloped potatoes, and cauliflower. How can Nancy make the meal more appealing?
    _____ a. Replace cauliflower with creamed peas.
    _____ b. Replace cauliflower with green beans.
    _____ c. Add a vanilla custard dessert.

ASSIGNMENTS:

I. Plan a menu that has sensory appeal. Include variety in textures, sizes, shapes, and colors.

II. Assume you have been assigned to prepare a menu for the following patients in a nursing home. Use the menu planning form (p. 107) and prepare a diet for one day for a

  a. man with stomach ulcers who needs a bland diet.
  b. woman with new dentures.
  c. man with a heart problem who needs a lowfat diet.

III. Using a restaurant menu, answer the following customer's questions:

  a. "What do you suggest I order for breakfast? I'm on a low-calorie diet."
  b. "I can't eat much fat. What would you recommend for lunch?"
  c. "I want smothered chicken à la carte, but I can't eat French fries. Any suggestions?"
  d. "I noticed that you don't have a 'Weight Watchers' section on the menu. What would you suggest that would be similar?" (If the menu does have a "Weight Watchers" section, overlook it.)
  e. "I am just starving, but my mouth is too sore to chew much after my recent dental work. Do you have anything on your menu that I could eat?"

IV. Assume you have been assigned to prepare a week's menu for your school cafeteria to include the breakfast and lunch program. Use the required amounts from the chart on p. 107 to plan your weekly menus.

GROUP WORK:

I. Describe the meal planning procedure of the food service establishment where you are employed. Compare this procedure with the meal planning procedures of other food service establishments. Discuss the reasons for the similarities and differences in the meal planning procedures.

II. Creating attractive and appealing food which provides sensory appeal to meals is an important part of the food service industry. In addition to garnishes, discuss other ways to add interest to meals.

III. Discuss personal family meal practices and patterns.

UNIT IV-6

NUTRITION

SUBJECT: Dietary Problems of the Sick and Aging

TASK: 12. Display a sensitivity to the problems resulting from the infirmities of aging and illness that influence dietary service.

OBJECTIVES: When you finish this lesson, you should be able to

a. identify characteristics and needs of aged or sick patients that affect their eating habits
b. describe ways to encourage aged or sick patients to eat.

The patient or resident is the most important person in any health care institution. A *patient* is a person who is hospitalized or who is confined to a room in a nursing home. A *resident* is a person in a nursing home who is ambulatory (able to walk) and can leave his or her room to eat in the dining room. To provide proper care for the patient or resident in a health care institution, the dietary aide should understand the effect illness or aging has on dietary needs.

Patients and residents in hospitals and nursing homes may react differently to food than they would in other circumstances. Food has many meanings. It does more than satisfy one's physical needs; it helps also to meet one's social needs. Food service in nursing home dining rooms provides opportunities for contact with other people and a chance to socialize. Food and understanding go together, especially for older people and those who are ill.

The residents or patients in a nursing home have many adjustments to make. It may take them some time to adjust to living in an institution. In addition to the change in environment, a resident or patient may have a *chronic illness* (one that lasts a long time). If they have a chronic illness they may be discouraged and depressed. This attitude is often reflected in their feelings toward eating and may result in loss of appetite.

In other instances, residents may be lonely and feel that they are out of touch with family and friends. They are now in a situation where they are dependent on others to do things that they were once able to do for themselves. The residents or patients may feel that no one really cares for them and that they no longer count. These emotional reactions may affect the eating habits of residents in one of two ways. They may either lose interest in food and not eat enough, or they may eat too much. If elderly people live alone, they may have little or no interest in cooking for one and eating by themselves. In an insitutional environment, there may be a difference in the eating behavior of persons who are able to eat in a dining room and those who must receive meals in their rooms. There are several advantages in providing dining room service for ambulatory residents:

1. Eating with others helps improve the appetites of residents.
2. Residents get exercise coming to the dining area, which helps formerly bedfast patients to regain their health.
3. The morale and sociability of residents is improved.
4. Residents show an increased interest in their personal appearance.

Additional factors influence aging adults' eating habits. Their decrease in activity may result in decreased appetite. Their nutritional needs, however, are basically the same except that fewer calories are required. Loss or impairment of teeth makes it difficult to chew, or there may be problems in adjusting to false teeth. The senses of smell and taste are changed with aging, so food is less appetizing to the elderly person. Older people, therefore, do not enjoy the same odors and tastes of foods as they once did.

It is important not to show disgust toward any illness or disability. A person who has had a stroke and is partially paralyzed may have impaired muscle ability. With little or no feeling in one side of the face, there may be little control and no taste on that side of the mouth. A similar sensation results from a deadening of the mouth for dental work.

It is essential to realize that many food habits are determined by ethnic, religious, regional, and economic factors. We establish eating patterns as children. We tend to imitate the eating habits of those around us. We also establish our attitudes toward food at this time. As we grow older, these patterns tend to become stronger. These eating patterns are a way of life for the elderly. If eating patterns are disrupted, the elderly person is upset.

Ethnic background or the region of the country in which we live influences our food preferences and eating patterns. These factors should be considered when planning menus for the elderly.

Religious dietary customs affect the habits of many patients. Because of these customs, certain foods are not eaten at all, and others are limited on certain days and during *fasts* (days when one does not eat some or any foods).

Food preferences are greatly affected by the economic status of the patient. The type of food that they are accustomed to eating is often influenced by the amount of money that has been available. If little money was available for food during their early or adult life, patients or residents may never have learned to enjoy a wide variety of foods, and their preferences may be limited. Elderly persons often have reduced incomes and may make poor selections in spending what little they have for food.

Patients or residents bring their own individual opinions and preferences about food with them. Occasionally, patients reject certain foods because they feel they are not desirable. For example, older people might refuse milk because they feel it is only for babies. Serving the rejected foods in different forms makes it possible to include these foods in their diet. For example, if milk is rejected as a beverage, it might be used in desserts or cream soups. Those who refuse salads might be given vegetables and fruits in other forms.

A new environment is hard for anyone to accept. Often, patients in a hospital sleep poorly. Their normal time schedules have been upset. This can cause them to have short tempers which are easily set off.

Frequently, the elderly go to bed early in the evening and then awaken long before breakfast. They may have been waiting for several hours for breakfast to be served. Even though their calorie intakes are reduced, it is of utmost importance for elderly persons to receive an adequate supply of the same nutrients needed by all age groups. It takes more planning obviously to reduce calorie intake and yet retain all the proper nutrients. This is done usually by reducing the amounts of fats and sweets in the diet, since other foods contain more of the essential nutrients.

Patients' food plays an important role in their general well-being. Those responsible for meal planning might improve the patients' food acceptance by recognizing their food preferences and including these as often as possible in their diets. Another important reason for knowing the patients' likes and dislikes and for trying to please them is to help them know that someone cares about them. Interest shown by others may improve their appetites and general well-being. The role of the dietary staff is therefore an extremely important one in contributing to the welfare of the patient or resident.

QUESTIONS:

1. Food means different things to different people. Name the two basic needs that food helps to meet for nursing home patients.
   a.
   b.

2. Nursing home residents have adjustments to make to their new life. What might some of these adjustments include?
   a.
   b.
   c.
   d.

3. In what two ways might the resident's reactions to nursing home living affect their eating habits?
   a.
   b.

4. Why do the people who live in nursing homes require fewer calories than when they were younger?

5. List four factors which influence a person's food habits.
   a.
   b.
   c.
   d.

6. Why is it important that the patients' food preferences be considered?
   a.
   b.

7. Define "ambulatory."

8. As Jane, a dietary aide, is removing trays from the table, Mr. Jones, a new resident in the nursing home, tells Jane that he cannot eat the ice cream dessert because he had seafood for dinner. Jane should:
   ______ a. tell Mr. Jones that there is nothing wrong with eating seafood and ice cream at the same meal.
   ______ b. agree with Mr. Jones because it is important not to hurt the feelings of the elderly.
   ______ c. tell the training sponsor the feelings expressed by Mr. Jones.

ASSIGNMENT:

I. Interview several elderly persons to discover their special food likes and dislikes. Compare your interviews with those of other class members.

GROUP WORK:

I. Listen to someone who operates a home for the elderly speak about dietary requirements, problems, and adjustments of the aged. How do these observations influence the dietary service?

UNIT IV-7

NUTRITION

SUBJECT: General and Therapeutic Diets

TASK: 13. Follow diet instructions when preparing food and filling plates and trays for general and modified diets.

OBJECTIVES: When you finish this lesson, you should be able to
- a. define dietary terminology
- b. describe the most commonly used therapeutic diets
- c. recognize menus for the most commonly used diets.

DIETARY VOCABULARY TERMS

Diet therapy is the procedure of changing normal diets to meet the body's requirements under special conditions. These special conditions deal primarily with the aging process and various illnesses. Before studying the diets for specific conditions, you should learn the special terms used in these specialized diets. You may have heard some of these words at your training station. You need to know them to perform your job properly.

Anemia	too little hemoglobin (red blood cells) in the blood.
Anorexia	loss of appetite for food.
Bulk	(the preferred term is "indigestible parts of food.") The roughage or tough connective tissue of certain foods, such as celery or citrus fruits, which cannot be broken down by the gastrointestinal tract.
Bland Diet	a diet composed of mild-flavored foods and foods that do not contain large amounts of cellulose or connective tissue.
Calorie or Kilocalorie	the unit of measure of the energy value of food.
Cardiovascular	the heart and vessels or ducts transporting blood.
Cholesterol	a fat-like substance found in animal tissues that is absorbed by the body in the presence of fat.
Convalescent	a person regaining health after an illness.
Diet Supplement	a concentrated source of nutrients prescribed in addition to the daily diet. May be a food such as yeast or wheat grain, a concentrate such as fish liver oil, or a doctor's prescription for vitamins or minerals.

Diet Therapy	modification of the normal diet to meet the requirements of the body under specific conditions.
Digestion	the process of breaking food down into substances which can be used by the body.
Exchange List	All common foods are divided into six groups; the foods in each list have approximately the same protein, fat, and carbohydrate content. Therefore, one food may be exchanged safely for another in the same list.
Food Allergy	a condition in which a person has an undesirable reaction to a food or food substance which is harmless to most people.
Gastrointestinal Tract	the part of the digestive system made up of the stomach and the intestines.
General or House Diet	the standard daily allowance of foods and beverages for the normal, healthy individual.
Gram	a basic unit of weight in the metric system equal to about 1/28 of an ounce or .0022 lb.
High-Calorie Diet	a diet higher in calories than the person's total energy requirement (usually prescribed for underweight persons).
Kilogram	a basic metric unit of weight and mass equal to 1000 grams or to 2.2 lbs.
Low-Calorie Diet	a diet lower in calories than the person's total energy requirement (usually prescribed for overweight persons).
Malnutrition	a condition of the body resulting from too much or not enough of one or more of the food nutrients.
Metabolism	all the chemical changes that result when the body uses food for building tissue, for producing energy, and for breaking down body tissues. Basal metabolism is the least amount of energy needed to keep the body alive when the person is not asleep. It does not include energy needed for extra activity.
Nutritionally Adequate	supplying all the substances needed by the body in sufficient amounts. The method of ensuring this is using the food groups in the Daily Food Guide or Recommended Dietary Allowances.
Postoperative	after surgery.

Restricted Diet	a diet which limits, curbs, or forbids the use of some foods or nutrients in the diet.
Sodium	a mineral commonly found in table salt or, as it is called in diet therapy, sodium chloride. Also found in certain foods and in drinking water.
Sodium Retention	a condition, called edema, in which too much sodium is held in the body tissues, resulting in fluid imbalance.
Therapeutic Diet	a special type of diet used as a necessary part of the treatment of patients to improve their health.
Sustagen	a substance which is high in calories, proteins, vitamins, and minerals taken orally or by tube.

TYPES OF DIETS

The planning of patients' diets is not one of the usual duties of a dietary aide or food service employee. It is the responsibility of the dietitian. However, the beginning employee should have a thorough understanding of the various diets which are prepared in most hospitals and homes for the sick and elderly.

A trainee in any type of institution which provides specialized diets for its residents or patients should be aware of the extreme importance of following prescribed diets strictly. If patients are given food which is not on their diet, very serious problems in the health of the individual could result, or even involve the trainee or institution in a serious lawsuit.

General Diets

The general or regular diet is based on a normal, adequate diet and includes recommended amounts of foods from the food groups in the Daily Food Guide. Most of the patients in a hospital are on the regular diet. A patient may be placed on a therapeutic diet for a short time due to special conditions, such as recent surgery. Many patients are then returned to the regular diet before leaving the hospital. A home for the aged also provides a regular diet for its residents; but if therapeutic diets are required by certain residents, such as diabetics, special diets are served to these residents on a regular basis. Most hospitals offer a *selective menu* for their patients. The patients may then choose the foods they prefer from those offered. Having a choice in food is very important to patients. They are much more likely to eat food they have chosen. Any diet is successful only if the food is eaten. Some hospitals offer selective menus to patients on therapeutic diets as well as those on the regular diet.

Therapeutic Diets

A therapeutic diet is part of the treatment to improve a patient's health. When doctors feel that certain changes should be made in a patient's diet, they give orders in exactly the same way that they would order medicines or any other treatment. The modification is then made by the dietitian. Although most hospitals have standard diets for specific conditions, it is important to understand that each patient is considered individually.

A diet can result in weight change; it can be designed to allow certain body organs to rest; it can be made up of foods which can be digested by an improperly functioning digestive tract; or it can be designed to overcome specific nutritional inadequacies. At one time, changes in normal diets were thought of as withholding certain foods. However, in many instances a modified diet adds foods to a normal diet. Therefore, emphasis should be placed on allowed foods, rather than on a long list of foods to avoid.

Patients accept a therapeutic diet more readily if they are given some explanation of its meaning. Some hospitals place an explanation card on the patient's tray. The card may say that their doctor has requested the diet modification and that the dietitian will call on them if they have any questions about the diet. Stress should be given that the diet is an important part of the patient's treatment. However, explanation of the diet is the doctor's responsibility, not the employee who serves it.

Most institutions provide a diet manual for their employees. However, some of the more commonly used therapeutic diets are listed below.

1. *Liquid.* Prescribed for the acutely ill patient, or the patient who has difficulty in chewing or swallowing. Because liquids leave the gastrointestinal tract more quickly, they are less irritating than solid foods. When patients are on a liquid diet, they should receive six or more feedings during the hours they are awake. The liquid diet may be one of two types:

    a. Clear-liquid, which includes liquids clear in color. The clear-liquid diet is used when a patient cannot take food or when there is nausea or vomiting. It supplies very few nutrients, but does give the body necessary fluids. A clear-liquid diet is given usually for only one or two days. Examples: gelatin, broths, tea, some carbonated beverages, apple juice.

    b. Full-liquid, which follows the clear-liquid diet as the patient improves. The properly planned full-liquid diet meets all the nutritional needs of a patient. Therefore, if necessary, a patient can stay on this diet for a longer length of time. Cream may be added to milk and milk drinks to increase their caloric value and to help reduce hunger pangs. Additional calories can be added with corn syrup or lactose, which is milk sugar. Examples: milk, eggnog, citrus and other juices, broth, coffee, tea, carbonated beverages, gelatin, sherbet (no pulp), cereal gruel, strained vegetable juices.

2. *Soft.* (Mechanical) This diet generally follows the normal diet. The soft diet may be used for a patient with a serious infection, a patient recovering from surgery, one having a disorder of the digestive system, or one who is too weak to make an effort to chew. The soft diet is nutritionally adequate and consists of soft-textured foods or foods which have been changed or strained and are easily digested. Examples: milk, soft eggs (not fried), tender or chopped meats (not fried or highly seasoned), potatoes and selected cooked vegetables, some cooked and canned fruits, toasted white bread, crackers, cooked cereals (no hot breads). Raw fruits and vegetables are not permitted, and tough meats should be avoided. Coffee and tea are usually limited.

3. *Bland.* The diet is sometimes given after full liquid diets or for patients with healing internal open lesions. The diet consists of foods with flavors not especially sweet, sour, sharp, bitter, or strong. Foods with coarse fibers should be avoided, as well as fried foods and strongly flavored vegetables, such as onions, dried beans, cabbage, and cauliflower. Coffee and tea should be limited or omitted because of the stimulating effects of caffeine. Examples of bland foods: applesauce, ripe bananas, creamed soups, vanilla ice cream, sugar cookies, cooked pears, cottage cheese, plain gelatins, plain cake, plain custards and puddings, milk, macaroni, potatoes, soft eggs, rice, bread, cereal products such as farina and cream of wheat, and baked or broiled meats, fish, and poultry.

4. *Diabetic.* In diabetes, the body is unable to use carbohydrates properly. Some mild cases of diabetes can be controlled by diet, and no medications are necessary.

   A diabetic diet should not be thought of as a "special diet," but rather as a modification of a normal diet. With the exception of carbohydrates, the diabetic person requires the same nutrients as a normal person.

   It is the responsibility of the patient's doctor to prescribe the exact amounts of protein, fat, and carbohydrate in each diabetic's diet. In a hospital or nursing home, it is up to the dietitian to see that these orders are followed carefully. Diets used to control diabetes are planned to be nutritionally adequate for the patient. Considerations in the diabetic diet include (1) using the exchange list to restrict amounts and types of certain foods, and (2) measuring food with standard equipment to control amounts of certain foods. Use of the exchange list makes it easier to provide a diet as near a normal diet as possible.

   The exchange list divides foods into six food groups. Foods in each group have comparable food values, making it possible for one food to be substituted for another food in the same group. The purpose of the exchange list is to provide varied and satisfying foods in the diet. This list is used also in weight reduction diets and for diets of some cardiovascular patients. An example of an exchange for 1 slice of bread is ½ cup cooked cereal or ½ cup mashed potato.

5. *Calorie-restricted:* These diets are usually for weight reduction. Although the calorie content is limited, the diets are nutritionally adequate. The exchange list system is often used when planning diets for weight reduction. Fad diets often recommend only a few food items and may provide weight loss but be nutritionally inadequate. Any reducing should be done under the direction of a doctor. Skipping meals is no aid in calorie-restricted diets because it only makes the individual more eager to eat the next meal, and therefore the individual eats more.

6. *Controlled-calorie:* These diets are used to maintain weight without gaining or losing. When the desired amount of weight has been lost, calorie intake must be adjusted to maintain the loss. This makes it necessary for the individual to relearn eating habits in order to keep the weight off. The exchange list is used in the controlled-calorie diet.

7. *Fat-restricted:* These diets are used for patients with liver, gall bladder, and certain cardiovascular diseases. Although nutritionally adequate, this diet may be low in calories due to fat restriction and may be supplemented by additional amounts of protein and carbohydrate when advisable. The patients should be made to understand the importance of diet and that failure to follow the diet may cause their illness to return, or that it may take them longer to recover fully. Patients on a low-fat diet may have little, if any, appetite, so the hospital staff should encourage them to eat the prescribed diet.

8. *Sodium (salt) -restricted:* Generally, these diets are used when there is edema related to heart conditions, toxemia of pregnancy, and other swelling conditions caused by sodium remaining in the body tissues. The diet is planned as nutritionally adequate for the patient, with limited amounts of salt and foods high in sodium content. Examples of high sodium content foods to be avoided include: bacon, ham, corned beef, olives, sauerkraut, sausage, potato chips, salty crackers, pretzels, saltwater fish, and shellfish.

   A patient on a low-sodium diet may have little appetite for meals, especially when the diet is severely restricted in salt. Therefore, this patient's food should be made as attractive and tasty as possible. This can be done by planning meals which provide a variety of colors, textures, and flavors. Sometimes raw vegetables and fruits are accepted better than cooked ones. One trick to increase the apparent saltiness of foods is to sprinkle the food with a small amount of lemon juice. (Salt and sour tastes are closely related.)

   Before leaving the hospital, patients should thoroughly understand their diet. They should be taught how to read food labels to look for sodium in the ingredients.

Most large dietary food services prepare a diet manual that lists all of the modified diets available. If your training station has a diet manual, study it to learn about additional types of therapeutic diets.

NOURISHMENTS AND SUPPLEMENTARY FEEDINGS

Patients may need extra nourishment in addition to regular meals as part of their treatment. To meet the patient's needs, the physician may order milk drinks, fruit juice, ginger ale, or special beverages. These beverages may or may not be accompanied by a wafer or cracker. Extra nourishments during the day or evening are called *nourishments.*

Supplies for supplementary feedings are usually ordered from each floor by a nursing supervisor. The orders are received and processed through the dietary department. Dietary personnel may be responsible for delivering the supplies to the floor. Patients suffering from malnutrition or health problems such as ulcers may need special feedings. The physician may order items such as milk or cream, eggnog, ice cream, or tube feedings to supplement the patient's regular meal schedule. Dietary aides are often asked to prepare these supplements according to the dietitian's orders. Special feedings which are part of the patient's diet therapy are called *supplementary feedings.*

QUESTIONS:

1. What is the difference between a clear-liquid and a full-liquid diet?

2. What is the difference between a general and a soft diet?

3. What are some of the limitations of the diabetic diet?

4. What is the purpose of the exchange list?

5. What other therapeutic diets use the exchange list?

6. What is the difference between restricted-calorie diets and controlled-calorie diets?

7. Observe the following menu and decide which foods would be altered or changed on a fat-restricted diet:

   Fried Chicken Breasts
   Potatoes Au Gratin
   Asparagus Sliced Tomatoes
   Peach Cobbler

8. What is limited in the sodium-restricted diet?

9. Below are some of the conditions listed on the main diet chart in the dietary office. List a type of diet which might be served to each patient.

   ____________________ a. Mr. Brown. . . . . .Internal open lesions

   ____________________ b. Mrs. Luce . . . . . .No dietary modification

   ____________________ c. Mr. Landa . . . . . .Extremely overweight

   ____________________ d. Mrs. Jennings. . . .Nutritionally adequate diet (patient has no teeth)

10. From the following list of foods, pick out the ones which would *not* be served to patients on
    a. a bland diet.

    b. a sodium-restricted diet.

    c. a diabetic diet.

cooked pears
cottage cheese
soft-cooked eggs
fried shrimp
white pepper
cream of wheat
ketchup
cauliflower
plain cake
cream of chicken soup
fried ham
potatoes
candy
sweet potatoes

11. Harry Brown, an ulcer patient, was sent a tray with the following food items: Waldorf salad, club steak, mashed potatoes, and ice cream. The tray card indicated he should have a soft diet. Which items are not appropriate for a soft diet?

12. List three beverages that might be used in a supplementary feeding.
    a.
    b.
    c.

13. A menu which provides choices is called a ____________________ menu.

14. The basic reason for using a selective menu for patients on a regular hospital diet is ____.

In Items 15-19, use the following words, and complete the situations by writing the appropriate word(s) in the blanks.

cardiovascular
postoperative
convalescent
calorie-restricted
edema or sodium retention
anorexia or loss of appetite

15. Mr. Jones had a gastrectomy this morning. As a ____________________ patient, he will be fed a liquid diet for a short time.

16. Mrs. Brown suffered a heart attack and was hospitalized immediately. Her condition involves the ____________________ areas of the body.

17. Mary is recovering from pneumonia; therefore, she is a ____________________ patient.

18. Mrs. Gordon is expecting her first baby within the next few days. She was admitted to the hospital last night with serious swelling in her ankles and feet caused by ____________________ or water retention in the tissues.

19. Mr. Byrd is hospitalized for a heart condition. The dietitian marked his dietary chart "Excessive overweight"; his name was added to the list of patients on a ____________________ diet.

In Items 20-30, match the terms with the appropriate definitions. Place the letter of the term in the blank to the left of each definition.

Definitions

______20. A concentrated source of nutrients added to the diet.

______21. All of the chemical changes resulting from the body's use of food for tissue building, energy production, and breakdown of body tissues.

______22. A diet which curbs or restricts amounts of something in the diet.

______23. The energy value of food.

______24. A mineral commonly found in table salt, certain foods, and in drinking water.

______25. A means by which foods are divided into six groups, with foods in each group having approximately the same protein, fat, and carbohydrate content.

______26. A special diet used as part of the treatment to improve the patient's health.

______27. The standard daily allowance of food and beverages for the normal, healthy individual.

______28. A means dietitians use for modifying the normal diet to meet the requirements of the body under certain conditions.

______29. A diet which meets all of the Daily Food Guide requirements for supplying all the substances needed by the body in sufficient amounts.

______30. A condition, called edema, which results in a fluid imbalance.

Terms

a. Calorie
b. Diet supplement
c. Diet therapy
d. Exchange list
e. General diet
f. Metabolism
g. Nutritionally adequate
h. Restricted diet
i. Sodium
j. Sodium retention
k. Therapeutic diet

ASSIGNMENTS:

I. Write a description of the system used at your training station to identify trays of food for different therapeutic diets. Exchange descriptions with other dietary employees to compare the systems used at various training stations.

II. Write a description of the procedure used at your training station to change a patient's diet from a presurgical diet to a postsurgical diet. Compare the procedures used at your training station with those used at other health care facilities.

GROUP WORK:

I. Listen to a dietitian discuss the various prescribed diets which are prepared in most hospitals and nursing homes. Why is it important for the dietary aide or food service employee to be aware of the importance of following the prescribed diets strictly?

II. Complete the matching exercise on pp. 126-127. Compare your answers with those of classmates. Discuss the terms used in specialized diets. Which terms are most frequently used at your training station?

TERMS USED IN SPECIALIZED DIETS

Directions: Match the term with the appropriate definitions. Place the letter of the term in the blank to the left of each definition.

Definitions

_____ 1. Modification of the normal diet to meet the requirements of the body under specific conditions.

_____ 2. The process of breaking food down into substances which can be used by the body.

_____ 3. Too little hemoglobin (red blood cells) in the blood.

_____ 4. All common foods are divided into six groups; the foods in each list have approximately the same protein, fat, and carbohydrate content. Therefore, one food may be safely exchanged for another in the same list.

_____ 5. Loss of appetite for food.

_____ 6. The roughage or tough connective tissue of certain foods, such as celery or citrus fruits, which cannot be broken down by the gastrointestinal tract.

_____ 7. A person regaining health after an illness.

_____ 8. The heart and vessels or ducts transporting blood.

_____ 9. The part of the digestive system made up of the stomach and the intestines.

_____10. A condition in which a person has an undesirable reaction to a food or food substance which is harmless to most people.

_____11. The energy value of food.

_____12. A concentrated source of nutrients prescribed in addition to the daily diet. May be a food such as yeast or wheat grain, a concentrate such as fish liver oil, or a doctor's prescription for vitamins or minerals.

Terms

a. Anemia
b. Anorexia
c. Bulk
d. Bland diet
e. Calorie or kilocalorie
f. Cardiovascular system
g. Cholesterol
h. Convalescent
i. Diet supplement
j. Diet therapy
k. Digestion
l. Exchange list
m. Food allergy
n. Gastrointestinal tract
o. General or house diet
p. Gram
q. High-calorie diet
r. Kilogram
s. Low-calorie diet
t. Malnutrition
u. Metabolism
v. Nutritionally adequate
w. Postoperative
x. Restricted diet
y. Sodium
z. Sodium retention
aa. Sustagen
bb. Therapeutic diet

_____13. A diet composed of mild-flavored foods and foods that do not contain large amounts of cellulose or connective tissue.

_____14. A fat-like substance found in animal tissues that is absorbed by the body in the presence of fat.

_____15. A mineral commonly found in table salt or, as it is called in diet therapy, sodium chloride. Also found in certain foods and in drinking water.

_____16. A diet which limits, curbs, or forbids the use of some foods or nutrients in the diet.

_____17. The standard daily allowance of foods and beverages for the normal, healthy individual.

_____18. After a surgical operation.

_____19. All of the chemical changes that result when the body uses food for building tissue, for producing energy, and in breaking down body tissues.

_____20. A substance taken orally or by tube which is high in calories, protein, vitamins, and minerals.

_____21. A basic unit of weight in the metric system equal to about 1/28 of an ounce or .0022 lb.

_____22. A special type of diet used as a necessary part of the treatment of patients to improve their health.

_____23. A diet supplying all the substances needed by the body in sufficient amounts. The method of ensuring this is using the Basic Four food plan or Recommended Dietary Allowances.

_____24. A condition, called edema, in which too much sodium is held in the body tissues resulting in fluid imbalance.

_____25. A diet higher in calories than the person's total energy requirement (usually prescribed for underweight persons).

_____26. A diet lower in calories than the person's total energy requirement (usually prescribed for overweight persons).

_____27. A basic metric unit of weight and mass equal to 1000 grams or to 2.2 lbs.

_____28. A condition of the body resulting from too much or not enough of one of more of the food nutrients.

UNIT V-1

SMALL EQUIPMENT FOR FOOD PREPARATION AND SERVICE

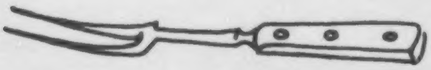
SUBJECT:	Hand Utensils
TASK:	14. Select proper hand utensils for food preparation tasks.
OBJECTIVES:	When you finish this lesson, you should be able to a. explain how to use hand utensils when preparing food b. identify correct hand utensils for a specific task.

Can you identify all the hand utensils in the dietary kitchen or the food service establishment where you are employed? Do you know which utensil will do the best job for the tasks you are assigned? Using the correct utensil for each task can save time and motion, prevent accidents, and give better results. Below are a few tips for saving time when using utensils.

1. Use as few utensils as necessary to do the job well.
2. Select the best tool for each job.
3. Assemble all needed utensils before beginning the task.

You should be able to name the most common hand utensils used in food service and understand how to use and care for them. The following list of various hand utensils, their sizes, and their possible uses should help you achieve confidence and skill in working with such equipment.

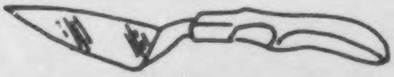
COOK'S, UTILITY, OR KITCHEN FORK



8 to 14 inches in length; steel tines riveted to wooden handle

Turning and handling roasts, holding meats while slicing

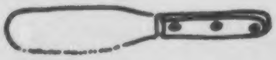
PIE KNIFE OR SERVER



6-inch length–flat area 4 inches by 2 inches

Removing pieces of pie from pan

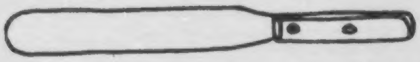
SANDWICH SPREADER



3½-inch blade, which may be serrated

Spreading fillings on sandwiches

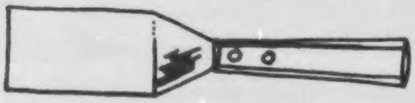
SPATULA



Leveling ingredients in measuring spoons or cups, spreading large areas of foods

8 to 12 inches in length; has medium flexibility

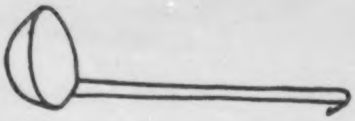
HAMBURGER TURNER



Turning hamburgers or other meat patties

6-inch blade of stainless steel

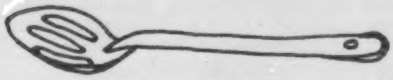
LADLES



Portioning liquids such as gravies, salad dressings, soups, and sauces. Be sure to use the correct size.

Variety of sizes from 1 to 30 oz.

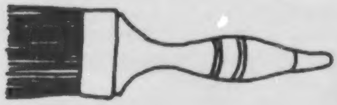
LONG-HANDLED SPOON



Serving or stirring foods, serving foods which need to be drained

11 to 15 inches in length; stainless steel, either solid or slotted

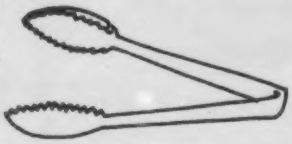
PASTRY BRUSH



Spreading melted butter or sauce on some food products

Sterilized bristles held in place by rubber strip

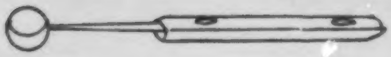
TONGS



Handling food products such as ice cubes and rolls without touching them with hands, lifting and turning meats and vegetables

9 to 12 inches in length

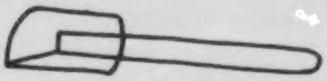
MELON BALL SCOOP



Cutting various fruits and vegetables into small balls

Stainless blade formed into half-ball cup

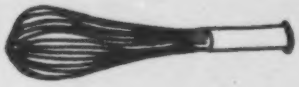
SCRAPER



Folding and blending ingredients; scraping dishes, bowls, and plates. Do not use in hot pots; the rubber melts.

9½ or 13½ inches in length; molded rubber attached to wooden or plastic handle

WIRE WHIP

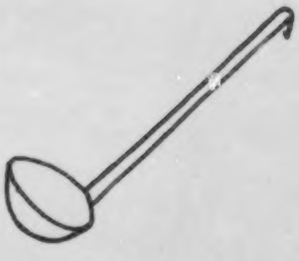


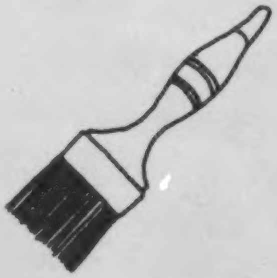
Stirring and whipping ingredients, incorporating air into ingredients (more effective than rotary beater or mixer) eliminating lumps in ingredients

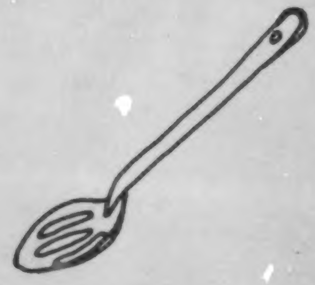
10, 12, or 16 inches in length; stainless steel or chrome

QUESTIONS:

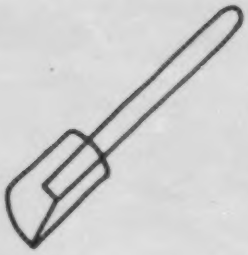
In Items 1-6, identify the pieces of equipment and give their main use. Write your answers on the lines below each piece of equipment.

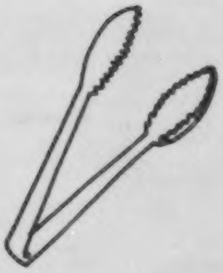


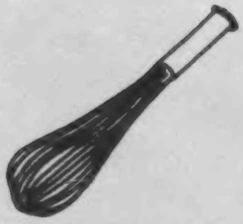




1. ____________________ 2. ____________________ 3. ____________________







4. ____________________
____
____

5. ____________________
____
____

6. ____________________
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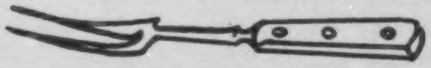
____

In Items 7-12, identify the pieces of equipment. Write the name of the equipment pictured in the corresponding blank.

7. ____________________

7.



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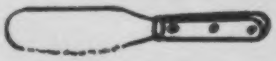
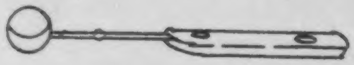


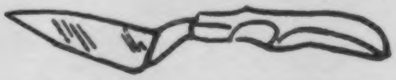
9. ____________________

9.



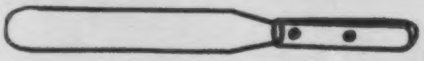
10. ____________________

10.



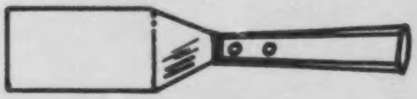
11. ____________________

11.



12. ____________________

12.



In Items 13-20, match the hand utensil with the task. Place the letter of the hand utensil in the blank to the left of each task. The letters may be used more than once.

Task

_____13. spreading sandwiches

_____14. turning steaks or hamburgers

_____15. cutting meat loaf

_____16. loosening food from pans

_____17. holding meat while slicing

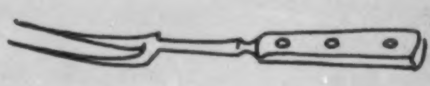
_____18. serving pie

_____19. turning a roast

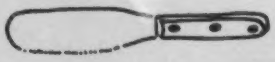
_____20. frosting cakes

Hand Utensil

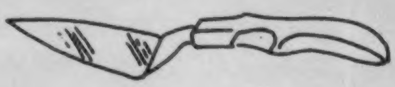
a.



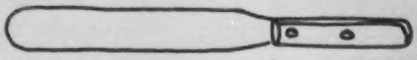
b.



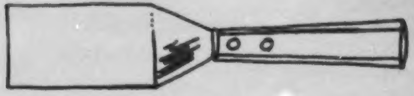
c.



d.



e.



ASSIGNMENT:

I. Visit a food service supply store to note the labor-saving "gadgets" available. Discuss your findings in class. Predict which may be used most or least. Which do you consider necessary? Desirable? Unnecessary? Which could be used at your training station?

GROUP WORK:

I. Divide into two teams. Listen as the leader reads excerpts from recipes. The first member in each group rings a bell if he/she knows what small utensil is needed for the procedure. The first to ring the bell answers. If an incorrect or incomplete answer is given, the other team gets a chance to answer. Rotate until all team members have had a chance to answer several times. The team giving the most correct answers wins the game.

UNIT V-2

SMALL EQUIPMENT FOR FOOD PREPARATION AND SERVICE

SUBJECT: Knives

TASK: 14. Select proper hand utensils for food preparation tasks.

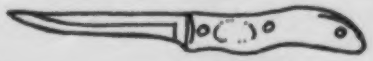
OBJECTIVES: When you finish this lesson, you should be able to
a. identify the correct knife for a specific task
b. describe safe procedures for using cutlery.

Though people differ in their ideas of which utensils are most necessary, nearly all agree that cutlery or cutting tools are essential in every kitchen. Many chefs purchase their own sets of cutlery since it is so important to them. Knives are used in the dining room for slicing bread and cutting meat and vegetables, as well as in the kitchen.

There are so many types of knives that selecting the right knife for a particular task can be a puzzling experience. The different kinds of knives have been made for specific uses. Selection of the best knife for each task can make the job easier and help ensure that the task is done correctly.

Illustrations and purposes of some of the most commonly used cutting tools, their common sizes, and their common uses are described below.

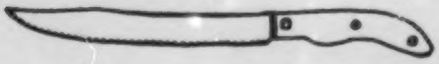
BONING KNIFE



Disjointing fowl, separating meat from bone, dicing raw meats, coring lettuce

5- to 6-inch blade made of stainless or carbon steel; wooden or plastic handle

BREAD KNIFE

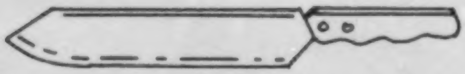


Slicing bread or cake

9-inch blade with serrated edge

Hint for Using: Hold bread or cake lightly and use a sawing motion with the knife.

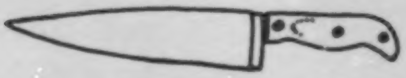
BUTCHER KNIFE



Disjointing fowl; preparing spareribs, pork loin; cutting brisket, short ribs from rib roast, chuck roast, rump; cutting lobster, crawfish; scaling fish; removing head of fish; cutting sweet potatoes, cabbage, watermelon, squash

Slightly curved, heavy, rigid blade with a blunt tip

FRENCH KNIFE

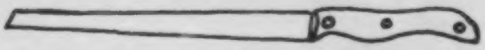


Slicing and cutting raw fruits and vegetables; slicing hot or warm meat; chopping small quantities of materials, such as parsley, onions, and nuts; dicing and mincing ingredients

8- to 12-inch blade of carbon or stainless steel; wooden handle

Hint for Using: Hold point of knife on cutting board with one hand. Use other hand to lift handle of knife in an up-and-down slicing motion.

SLICER

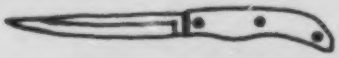


Slicing tomatoes, lettuce wedges; slicing roast or ham; cutting cakes or sandwiches

10- to 16-inch carbon or stainless steel blade, which may be serrated; wooden or plastic handle

Hint for Using: When slicing meat, use back-and-forth sawing motion.

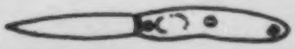
FRUIT AND SALAD KNIFE



Coring lettuce; paring and sectioning fruits

5 ½- to 6-inch stainless steel blade

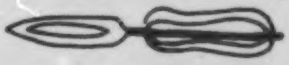
PARING KNIFE



Paring fruits and vegetables; removing eyes from potatoes

3- to 3 ½-inch blade of carbon or stainless steel

PEELER



Slicing thin strips of fruits and vegetables; peeling fruits and vegetables

6-inch floating blade

Knives which are kept sharp are both easier and safer to use. Less pressure is required when the knife is sharp, and there is less danger that the knife will slip.

KNIFE SELECTION

Quality is very important in knife selection. The higher the quality of knives, the more expensive, of course. However, the high-quality knives will last longer and stay sharper.

Knife Blades

Many kinds of materials are used in knife blades. The combination of carbon and steel is usually the most desirable because it will retain a sharper edge longer. The carbon content in knife blades is very important, because if it is not properly balanced, the blades will get dark and stain and also will not hold a good, straight edge. *Vanadium*, a carbon steel strengthener, and *chromium*, which is an element in stainless steel, are sometimes added to the better quality knives to help prevent staining and rusting. Not only does stainless steel prevent rusting and staining, but also it helps prevent the plating from wearing off.

Types of Knife Edges

Different knife edges are put on blades depending on the purpose the knife will be used for. Below are some of the types of edges and purposes:

Type of Edge	*Purpose*
Serrated	Slicing bread, cakes, and tomatoes
Partially Serrated	Slicing poultry and ham
Double Edge (Serrated and Straight)	Peeling and slicing
Center Hollow Ground	Cutting cheese
Half Taper Ground	Chopping meats and vegetables
Hollow Ground	Slicing, paring, peeling
Professional Edge	Carving hot meats and roasts

Knife Handles

Knife handles are made of many finishes. High-quality knife handles are usually made of birch, maple, rosewood, or walnut. The finest handles are made by putting plastic into the wood. These handles are dishwasher safe, while an all wood handle is not always dishwasher proof.

The knife *tangs* are usually either driven or riveted. Tangs are a part of the knife blade that goes into the handle. The riveted tang is much better quality and usually will last a long time because it is one piece of grooved wood into which the blade extends about one-third of the way. The driven tang is of relatively poor quality and usually comes apart very easily. It is put on the knife with one tang inserted into a plastic handle.

Keeping Knives Sharp

Practices to follow which will help to keep knives sharp are:

1. Wash knives by themselves, rather than with other utensils.
2. Place knives in the dishwashing sink with the handles together and the blades pointed in the same direction.
3. Dry each knife separately and store in knife rack or a specified place in the drawer.
4. Use only for cutting and slicing, not for prying open jars or cans.
5. Avoid dropping knives on the floor or into a drawer because they could become nicked.

SHARPENING KNIVES

A quality knife will stay sharp for years by using a good sharpening steel or stone on a regular basis. It is best to sharpen the knife each time you use it; but if this is not possible, sharpen knives at least weekly. Scalloped and serrated blades should not be sharpened.

Be sure to get detailed instructions from your supervisor before ever attempting to sharpen knives. Even after you are familiar with the procedure, always use extreme care.

Some food service operations may have an electric sharpener. Be sure you have detailed instructions on how to operate it correctly. Knives to be sharpened should be clean and dry since wet or greasy blades coat the grinding wheel. Follow manufacturer's directions on cleaning the knife sharpener.

SAFETY PRACTICES IN USING CUTLERY*

Proper use and care of knives is an important factor in keeping knives in good condition. Following are some guidelines for using knives:

1. Use the correct knife for a particular job.
2. Use a cutting board whenever possible.
3. Always wash and wipe a knife from the back of the blade, being sure that your fingers do not extend to the cutting edge.
4. Do not put a knife into water where it is not easily seen.
5. When carrying a knife, hold it with the point downward.
6. Do not use a knife as a lever to pry jar lids off or for other similar purposes.
7. Do not use a knife for cutting paper and string or for sharpening pencils.
8. If it is used effectively and thoughtfully, a sharp knife is safer than a dull knife.
9. Knives stored in racks or in slots in drawers can be picked up with more safety than those which are thrown into a drawer.
10. Do not use a knife to turn food, such as hamburger patties, steaks, pork chops, or pancakes, since heat damages the blade.

QUESTIONS:

1. Name three woods that high-quality knife handles are usually made of.
   a.
   b.
   c.

2. ______________________ and ______________________ are added to better quality knives to help prevent staining and rusting.

3. The ______________________ tang usually comes apart very easily, but the ______________________ tang usually lasts a long time.

---

*U.S. Department of Agriculture. *Training Course Outline on Use and Care of Equipment.* Washington, D.C.: U.S. Government Printing Office, 1960. p.132.

In Items 4-11, identify the knives in the illustrations on the right. Write the name of the knife in the blank to the left of each number.

4. ______________________________

5. ______________________________

6. ______________________________

7. ______________________________

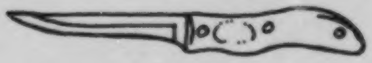
8. ______________________________

9. ______________________________

10. ______________________________

11. ______________________________

4.



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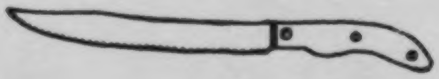

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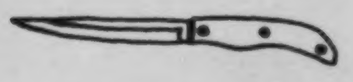

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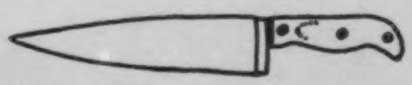

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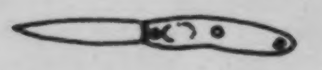

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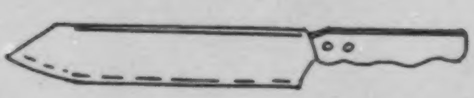

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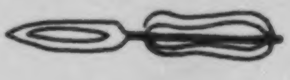

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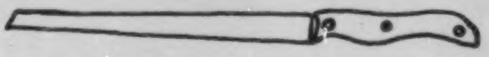


In Items 12-24, identify the knife illustrated in Items 4-11 that you would use for each of the tasks listed below. Write the number of the knife in the blank to the left of each task. Numbers may be used more than once.

Food Preparation Tasks

_____12. Cutting cakes

_____13. Peeling carrots

_____14. Coring lettuce

_____15. Chopping parsley

_____16. Slicing bread

_____17. Paring and sectioning fruits

_____18. Removing meat from the bones

_____19. Cutting sandwiches

_____20. Slicing raw fruits

_____21. Paring fruits and vegetables

_____22. Slicing tomatoes

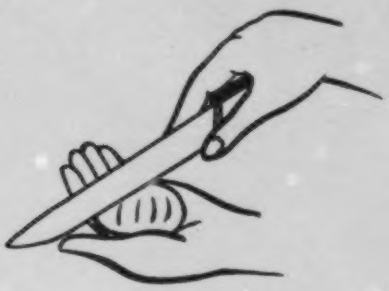
_____23. Cutting brisket, short ribs from rib roast

_____24. Dicing raw meat

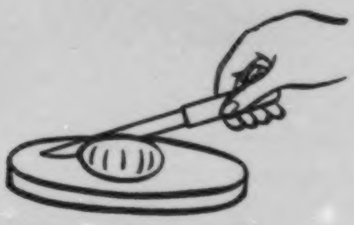
In Items 25-30, select the correct practice in each of the following examples. Circle either letter *a* or letter *b* to indicate the correct practice.

25. Chopping

a.

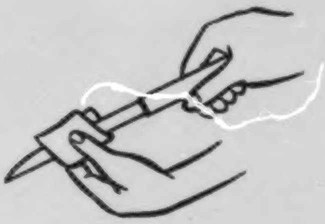


b.

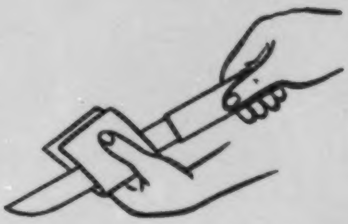


26. Washing or wiping a knife

a.

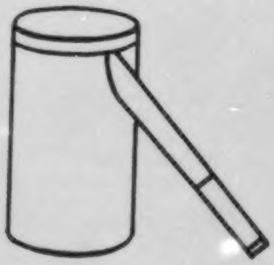


b.

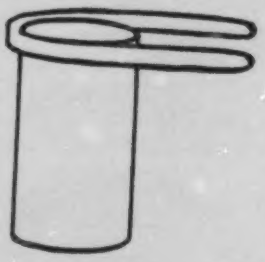


27. Opening a jar

a.

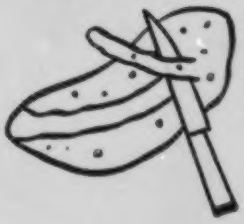


b.



28. Paring a potato

a.



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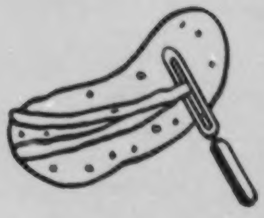
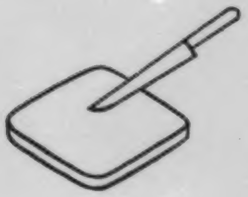


29. Spreading sandwiches

a.



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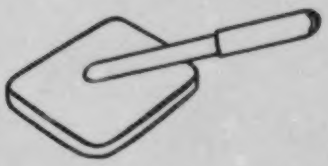
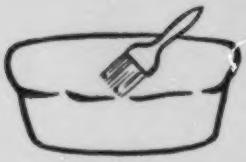
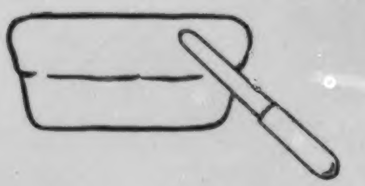


30. Spreading melted butter

a.



b.



ASSIGNMENT:

I. Prepare a bulletin board on safety practices to observe when using or caring for knives.

GROUP WORK:

I. In small groups produce skits to show ways that knife use affects a person's safety. Characters may be "Mr. or Ms. Careless" or "Mr. or Ms. Careful."

II Visit a meat slaughter plant, butcher shop, or school cafeteria and watch the butcher cut meat. Notice the smooth and easy handling of the knives and the different knives used for cutting.

UNIT V-3

SMALL EQUIPMENT FOR FOOD PREPARATION AND SERVICE

SUBJECT: Can Opener

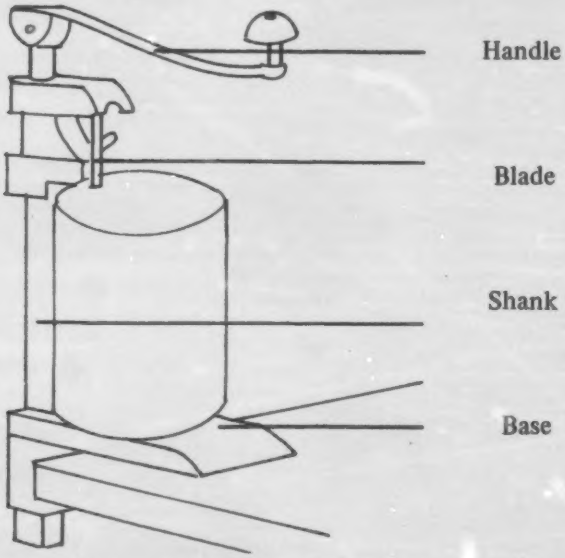
TASK: 14. Select proper hand utensils for food preparation tasks.

OBJECTIVES: When you finish this lesson, you should be able to

a. state procedure for proper use and care of commercial can openers
b. summarize functions of the commercial can opener.

The commercial can opener is designed to remove lids from cans ranging from small through institutional sizes. When properly used, the can opener can save time and energy.

BENCH-TYPE MANUAL CAN OPENER



To operate the bench-type manual can opener, lift the handle to a vertical position until the cutting blade is about one inch above the can. Wipe the top of the can with a damp cloth. Place the can on the base and with a quick downward motion, force the blade into the top near the edge. Lower the handle to a horizontal position. To open the can, turn the handle clockwise until the blade cuts out the lid. Remove the lid before it falls into the can. Raise the handle to a vertical position. Lower the shank into the base of the can opener. Wipe the blade of the can opener with a damp cloth after each operation. Food deposits that remain on a can opener not only cause bacterial contamination and off-flavors and odors in food but also may interfere with the operation of the can opener.

Clean the can opener daily. Remove the opener by lifting the shank out of the base. Soak the shank in a hot detergent solution and scrub the shank with a brush. Rinse the shank under hot running water and dry. Inspect the blade by checking for nicks and grooves which may cause metal shavings to drop into food. Following manufacturer's instructions, replace the old or badly worn blade with a new one. Keep the can opener in good repair so that it cuts sharply and leaves no ragged edges. To clean the base, wipe it off with a hot damp cloth. Give careful attention to the edge of the base.

For monthly cleaning of the can opener, clean and inspect the blade following the instructions for daily cleaning. Remove screws and the base. Scrub the blade using a hot detergent solution; rinse and dry. Clean the table under the can opener by scrubbing with a hot detergent solution; use a scraper if necessary. Rinse and dry the table. Apply a very thin film of rust preventive (cooking oil) to the shank and bottom of base. To reassemble the can opener, screw the base back in place and replace the shank.

ELECTRIC CAN OPENER

Many food service operations now use electric can openers. They operate on the same principle as manual can openers. To operate the electric can opener, place the can against the opener with the protruding edge of the can on the cutting wheel. Pushing the start button or lever will start the motor, puncture the can, and rotate the can against the cutter.

The can opener blades should always be wiped clean with a damp, sudsy cloth. Most cutter wheel assemblies may be removed for cleaning but check manufacturer's directions first.

QUESTIONS:

1. What is the function of the commercial can opener?

2. Why is it important to check the blade of the can opener for nicks and grooves?

3. Why should the blade of the can opener be wiped with a damp cloth after each operation between food products?

ASSIGNMENT:

1. Make a check list to follow when cleaning the can opener. Include daily cleaning, inspection of the blade, cleaning of the base, etc. Compare your check list with the check lists prepared by class members.

GROUP WORK:

1. Work with other food service employees and brainstorm to identify purposes of caring for commercial can openers. Include such purposes as the appearance, sanitation, safety, increased durability, and minimal repairs of the can opener.

UNIT V-4

SMALL EQUIPMENT FOR FOOD PREPARATION AND SERVICE

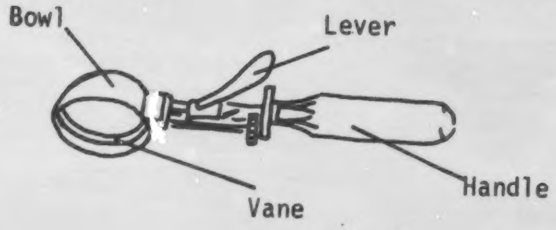
SUBJECT: Dippers

TASK: 14. Select proper hand utensils for food preparation tasks.

OBJECTIVES: When you finish this lesson, you should be able to

a. identify parts of the dipper
b. list procedures for care of the dipper
c. list uses for various sizes of dippers.

DIPPER



Uses

The main function of the dipper is to portion food and control the amount of food served. It is also used for shaping some foods. The size of the dipper is indicated on the vane or handle.

Operation

When using the dipper, grasp the handle in the palm of your hand. Place the bowl of the dipper into the food and fill the dipper by pushing it against the side of the container which holds the food. This ensures a level measurement. Do not round off or heap the dipper; portion sizes are determined by a level measure. Press the lever on the dipper with your thumb to release food onto the plate. The vane rotates around the bowl of the dipper to aid in releasing the food.

Special Care

To clean the dipper, wash it with detergent and warm water. Use clear water with disinfectant added for rinsing. Drain and air-dry.

The chart below shows the common uses of the various sizes of dippers and the number and sizes of portions per quart of food. Be sure you know the appropriate dipper for your operation.

Dipper Size	*Number of Portions Per Quart*	*Size of Portions (in oz., T., or c.)*	*Uses*
No. 6	6	6 oz. or 10 T.	luncheon-type salads
No. 8	8	4 to 5 oz. or ½ c.	luncheon foods, meats with sauces
No. 10	10	3 to 4 oz. or 6 T.	pudding-type desserts, ice cream, hot cereals, some vegetables, meatballs, and meat patties
No. 12	12	2 1/3 to 3 oz.	meat salads, vegetables, muffin batter, desserts
No. 16	16	2 to 2¼ oz. or ¼ c.	muffin batter, desserts
No. 20	20	1¾ to 2 oz. or 3 T.	muffin and cupcake batter, various sauces, and gravy
No. 24	24	1½ to 1¾ oz. or 2 2/3 T.	cream puffs, cookies
No. 30	30	1 to 1½ oz. or 2 T.	drop-type cookies
No.'s 40 70 100	40 70 100	Less than 1 oz.	dainty cookies, hors d'oeuvres

QUESTIONS:

1. What is the relationship between the number of servings per quart and the number of the dipper size?

2. Suzie had been using the No. 10 dipper to portion the chocolate pudding for the evening meal. The steps she should use to clean the dipper are:
   a.
   b.
   c.

In Items 3-10, change the following portion servings from ounces to tablespoons or parts of a cup:

Ounces		*Tablespoons or Parts of the Cup*
3. 6 oz.	=	
4. 4 to 5 oz.	=	
5. 3 to 4 oz.	=	
6. 2 1/3 to 3 oz.	=	
7. 2 to 2¼ oz.	=	
8. 1¾ to 2 oz.	=	
9. 1½ to 1¾ oz.	=	
10. 1 to 1½ oz.	=	

In Items 11-18, give the number and size of servings per quart that the following sizes of dippers serve.

Dipper Size	*Number Servings Per Quart*	*Size in Ounces*
11. No. 12		
12. No. 16		
13. No. 6		
14. No. 10		
15. No. 8		
16. No. 24		
17. No. 20		
18. No. 30		

Study the diagram of the parts of the dipper. In Items 19-22, match the letter of the dipper parts with the statements. Place the letter of the dipper in the blank to the left of the statement.

Statements

_____19. The dipper is held by the __________

_____20. The food is measured in the __________

_____21. The __________ rotates when the

_____22. __________ is pressed, releasing the food.

Dipper Parts

a. Bowl
b. Handle
c. Lever
d. Vane

The number of ounces per serving determines the number of servings per quart. Using the table in the reading materials, match the number of ounces per serving with the resulting number of servings per quart in Items 23 through 30.

Ounces Per Serving

_____23. 1 to 1½ oz.

_____24. 1½ to 1¾ oz.

_____25. 1¾ to 2 oz.

_____26. 2 to 2¼ oz.

_____27. 2 1/3 to 3 oz.

_____28. 3 to 4 oz.

_____29. 4 to 5 oz.

_____30. 6 oz.

Servings Per Quart

a. 8
b. 16
c. 20
d. 6
e. 12
f. 24
g. 10
h. 30

In Items 31-38, locate the appropriate dipper size for each food and serving size listed. Place the letter of the dipper size in the blank to the left of each food and serving size. Use each letter only once.

Foods and Serving Size

______31. Muffin batter, desserts; 2 to 2¼ oz. or ¼ c. portions

______32. Pudding-type desserts, meat patties, meatballs, vegetables, hot cereals; 3 to 4 oz. or 6 T. portions

______33. Luncheon-type salads; 6 oz. or 10 T. portions

______34. Muffins and cupcake batter, sauces, and gravy; 1¾ to 2 oz. or 3 T. portions

______35. Luncheon foods, meats with sauces; 4 to 5 oz. or ½ c. portions

______36. Cream puffs and cookies; 1½ to 1¾ oz. or 2 2/3 T. portions

______37. Meat salads, vegetables, muffin batter, desserts, salads; 2 1/3 to 3 oz. or 1/3 c. portions

______38. Drop-type cookies; 1 to 1½ oz. or 2 T. portions

Dipper Size

a. No. 6
b. No. 8
c. No. 10
d. No. 12
e. No. 16
f. No. 20
g. No. 24
h. No. 30

ASSIGNMENT:

I. List the sizes of dippers which you often use at your training station. What food items are the dippers used for? Compare your list with those of other food service employees to learn the uses of dippers in other health and food service establishments.

GROUP WORK:

I. In small groups, brainstorm to identify the advantages of using dippers in food preparation. One advantage would be to control the amount of food served. What other advantages can you think of?

UNIT V-5

SMALL EQUIPMENT FOR FOOD PREPARATION AND SERVICE

SUBJECT: Weighing and Measuring Equipment

TASK: 15. Measure and weigh foods according to specifications listed in standard recipes.

OBJECTIVES: When you finish this lesson, you should be able to:

a. list procedures for using standard weights and measurements accurately and correctly
b. describe procedures for use and care of scales and balances.

REFERENCE: Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 102-103.

Dietary aides and food service employees should become familiar with the procedures and measurements which are used for measuring ingredients at their training stations. Selection of the proper measuring equipment is a primary factor in being able to prepare standard food products consistently. After choosing the appropriate measure for the task involved, dietary aides and food service employees must develop skill in using the measure correctly.

Quality in food production cannot be achieved unless the amounts called for in the recipe are measured carefully. Measurements of ingredients must be level in order to be accurate. Suggestions for using measuring equipment are given in this unit.

Types of measures include:

1. U.S. Standard graduated dry measuring cups—stainless steel or aluminum preferred

   Set or "nest" of four measures including 1 cup, ½ cup, 1/3 cup, and ¼ cup

2. Liquid measuring equipment—clear plastic recommended; glass chips easily; the space at the top above the graduated measurements prevents spilling the liquid

   1-cup size with lines indicating ¼-cup intervals

   1-pint size with lines indicating cup intervals

   1-quart size with lines indicating cup intervals

   2-quart size with lines indicating cup intervals

   1-gallon size with lines indicating quart intervals

3. Measuring cup for either liquid or dry ingredients–limited use for dry ingredients because only full cup measurements can be leveled off

   1-cup measure with fractions indicated by ridges on the outside and grooves on the inside

4. Measuring and mixing bowl set

   1-cup, 1½-pint, and 2-quart containers which have tapered pouring spouts

5. Measuring spoons

   U.S. Standard graduated set including ¼ teaspoon, ½ teaspoon, 1 teaspoon, and 1 tablespoon

Suggestions to be considered in using the various types of measuring equipment are the following:

1. Cups which have the rim above the "full cup" line and a pouring lip or spout are used for measuring liquids.
2. Cups without the rim or pouring lip are used for measuring dry ingredients and shortening.
3. Graduated spoons are used for measuring small amounts of liquids and dry ingredients.
4. Larger measures are used, whenever possible, to avoid filling the smaller measure several times.

How to Measure:

1. Flour	Usually weighed, stirred and measured in large quantities. In smaller quantities: sift flour before measuring to make it light and to remove any lumps. Spoon or scoop sifted flour gently into cup. Do not shake, pack, or hit the side of measuring cup. Move a straight-edged knife or spatula across top edge of measuring container to remove excess flour.
2. Confectioner's sugar	Measure in the same way as flour.
3. Brown sugar	Pack firmly into measuring container (unless stated otherwise) to ensure accuracy of the measurement. When loosely packed, the amounts of brown sugar vary from one measuring to the next.
4. Fats	Measure by pressing firmly into measuring container and leveling off.
5. Liquids	Place measuring cup on a flat surface and read measurement at eye level.
6. Few grains, speck, or a pinch	Use amount of the ingredient which can be held between thumb and forefinger.

7. Fractions of a teaspoon or tablespoon . . . . . Fill and level correct size measuring spoon. If the correct size spoon is not available, use a full teaspoon or tablespoon. Run a knife lengthwise through the center of the spoon for a ½ spoonful measure and then crosswise through the center of the spoon to divide the ingredients into ¼ spoonfuls.

Tips to be followed in the care of measuring equipment:

1. Wash thoroughly and dry after each use.
2. Use plastic measures carefully because they warp easily and are then no longer accurate.
3. Handle glass measures carefully because they chip easily.
4. Care for measuring spoons by using them only for measuring–not for mixing or stirring.
5. Store measuring equipment carefully because bent measures are no longer accurate.

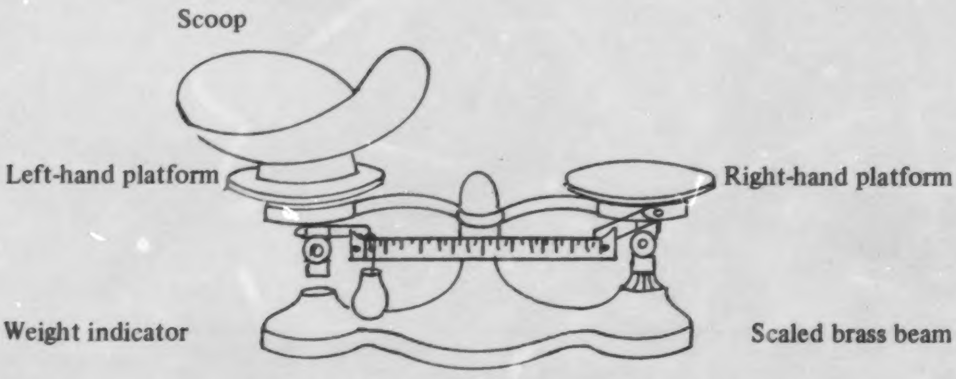
Functions of Scales and Balances

Scales and balances are used in quantity food preparation to save time and assure accuracy. Because ingredients are not all the same weight, it is not always correct to say that 2 cups of an ingredient equal 1 pound. When the amounts in a recipe are expressed in ounces or pounds, it is important that ingredients be weighed instead of measured.

Scales and other equipment used for weighing must be kept clean. This may be done by wiping the scale with a damp cloth after weighing each ingredient. At the end of the day, weighing equipment should be checked to see that ingredients have not accumulated on it.

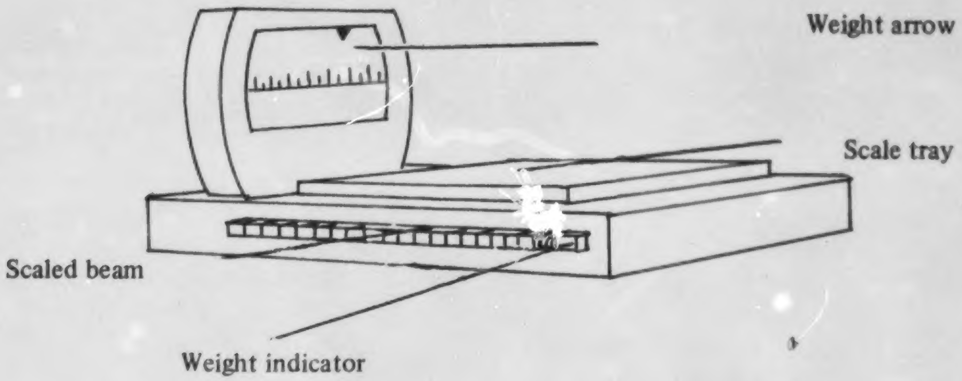
Several acceptable types or models of scales and balances are used in food service. These include (1) the spring-type model, which is used for weighing dry ingredients, such as beans, macaroni, rice, cheese, fruits, and vegetables; (2) the gravity-activated type, called the balance scale, which is used for weighing batters and mixes; (3) the portion scale, which is used for weighing portions of food and rolls; (4) the baker's scale, which is used for weighing ingredients or for scaling dough. For instance, dough for a loaf of bread is weighed for uniform-sized loaves.

BAKER'S SCALE



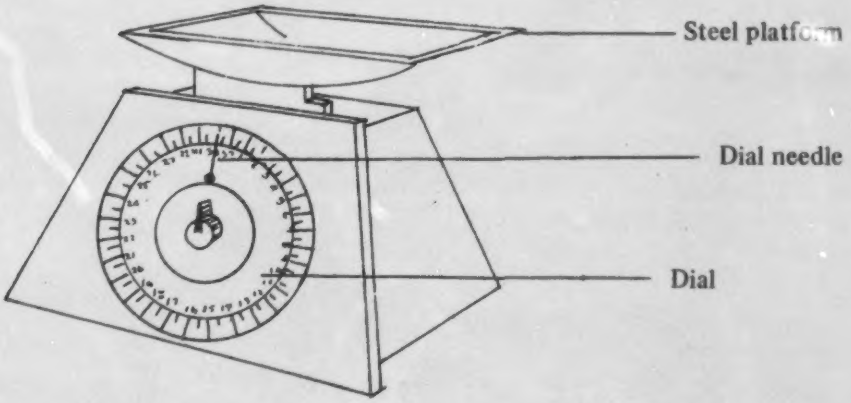
To operate the baker's scale, place the weight indicator at zero on the scaled brass beam, which indicates ounces up to 1 pound. Center the scoop on the left-hand platform. Balance the scoop by placing the proper weight on the right-hand platform. Weights are used to balance the two platforms. The left platform should be slightly lower than the right platform. Move the weight indicator on the brass beam to the right until the desired weight is found and the two platforms are balanced. The ingredients to be weighed are placed in the scoop on the left-hand platform. If necessary, add or remove a portion of the ingredients to make the platforms balance. When the weighing procedure has been completed, remove the ingredients or food items being weighed and return the scales to a balanced position.

PORTION SCALE



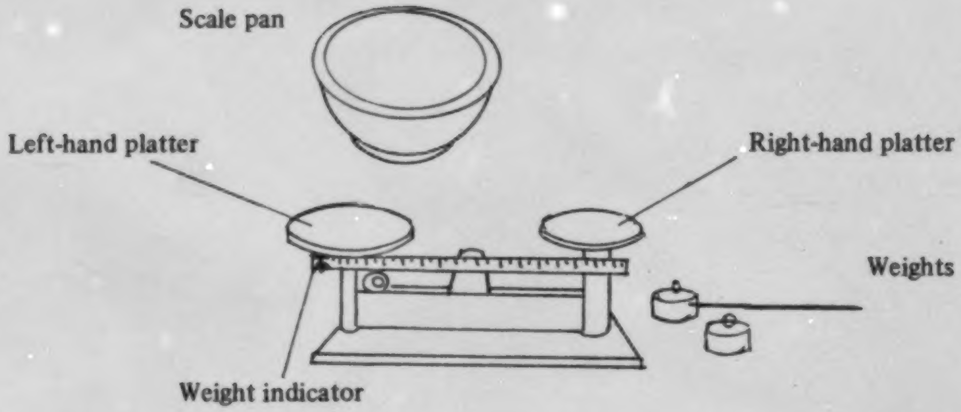
To operate the portion scale, place the weight indicator in the groove along the scaled beam for the desired portion size. Place the product on the scaled tray. Check the weight arrow to see if the portion needs to be increased or decreased.

SPRING-TYPE SCALE



To operate the spring-type scale, place the product to be weighed on the steel platform. The rotating dial needle indicates the weight of the product. The dial on the front of the scale is graduated from ¼ ounce to 32 ounces.

BALANCE SCALE



To operate the balance scale, remove all weights from the right-hand platter. Remove the scale pan from the left-hand platter. Place the weight indicator into the zero notch. Platters should come to rest in a position level and opposite to each other. (When scales are in a balanced position, touching either platter should cause both platters to move in an up-and-down motion before again coming to rest in the balanced positions.) Select weights appropriate for the measurement and place them on the right-hand platter. Place the weight indicator in the proper notch. Placing the weight on the scales will cause the right-hand platter to swing downward and rest on the frame of the scales. Place the food item on the left-hand platter in an amount just sufficient to bring scales into a balance position. (The item to be measured can be added in relatively large amounts until the scales begin to swing into a balanced position. Smaller amounts should be added until the exact balanced position is accomplished.)

Clean the scales daily by wiping the platter or platform with a damp cloth. Wash the scale pan after each use with detergent water and a clean cloth. Let the scales air-dry.

QUESTIONS:

1. All measurements must be level to be accurate. Describe the procedure used to level dry ingredients.

2. Why is it recommended that both glass and metal measuring cups be used in food preparation?

3. Why should brown sugar be packed firmly when measuring?

4. Fractional measurements are possible without a measuring spoon of that specific fraction. Explain how you would measure 1/8 teaspoon allspice.

5. Why is flour sifted before measuring?

6. Why should standard measures be used in food preparation?

7. Why is weighing ingredients recommended for quantity food production?

8. Briefly state how to measure the following items properly:
    a. brown sugar

    b. solid shortening

    c. pinch of salt

    d. water

    e. 1/8 t. cinnamon

In Items 9-12, match the scales to the appropriate function. Place the letter of the scales in the blank to the left of each function.

Function

_____ 9. Weighing servings of food and rolls

_____10. Weighing dry ingredients such as beans, macaroni, rice, cheese, fruits, and vegetables

_____11. Weighing ingredients or scaling dough

_____12. Weighing batters and mixes

Scales

a. Baker's scale
b. Balance scale
c. Portion scale
d. Spring-type scale

ASSIGNMENT:

I. Identify the type of scales and balances used at your training station. Explain the use and care of the scales.

GROUP WORK:

I. In small groups, make a list explaining the use of weighing and measuring equipment, such as measuring cups, scales, and balances in food preparation. How does each save time and assure accuracy? Compare lists with other groups.

UNIT V-6

SMALL EQUIPMENT FOR FOOD PREPARATION AND SERVICE

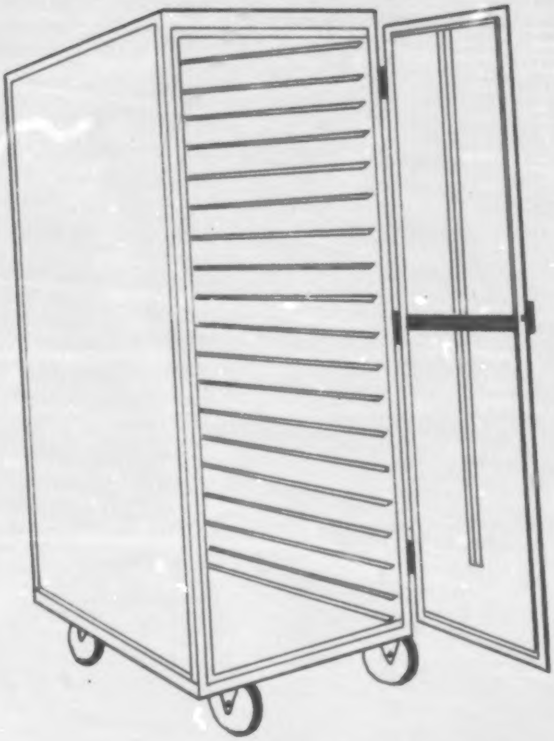
SUBJECT:	Food Transporting Equipment
TASK:	16. Select and use correctly proper pieces of equipment for tasks in food preparation, transportation, and service.
OBJECTIVES:	When you finish this lesson, you should be able to a. select the appropriate piece of equipment for a particular task b. describe procedures for transporting food and equipment safely.
REFERENCE:	Weiss, Edith, and Weiss, Hal. *Catering Handbook*. New York, New York: Ahrens Publishing Co., Inc., 1971. pp. 11-29.

Food often has to be transported hot or cold in hospitals, schools, large cafeterias, hotels and motels, and nursing homes, as well as in catering businesses. Maintaining quality, safety and appearance is the major objective of food service operations that are involved in transporting food.

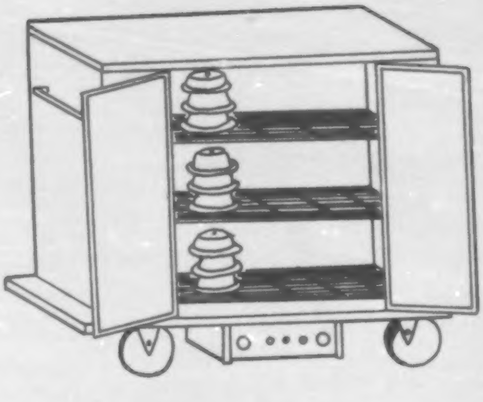
The type of food service system determines what type of equipment is needed to transport food from one location to another. Food carts and carriers are essential for the safe transportation of food. Carts are usually equipped with temperature-control devices. Combination hot and cold carts are loaded with the correct number of served trays and then transported. Hospitals and nursing homes may use this type of cart. The carts are delivered to each floor or wing of the facility. The cart is plugged in to maintain correct temperatures while the trays are served from the cart to the patients. The cart may also have a container with a spigot for serving beverages.

Bulk food carts are used to move larger amounts of food from a central kitchen to another location where the food is served. These carts are used in some hospitals where trays are made up in floor kitchens and delivered to patients. Banquet carts may be used by caterers and large hotels and motels, to transport served plates to the location of the banquet. Plates are covered with domed covers and stacked on shelves in the cart. Bakers may place baked products on trays in a tall bakery cart for transporting. The type of carts used to transport food are shown on p. 154. Portable food carriers are described in the reading assignment.

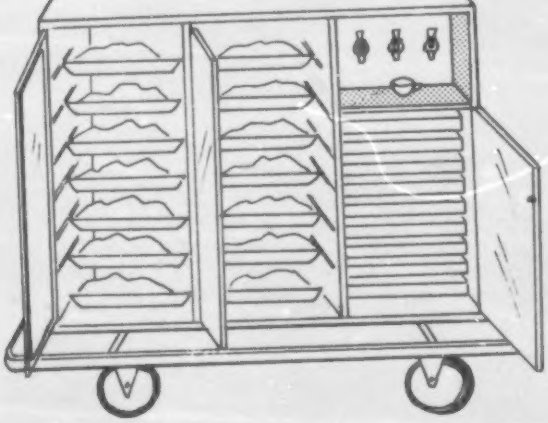
Equipment such as glassware, dishes, cooking utensils and flatware may be transported in carrying cases. Heavy cardboard or wooden boxes with dividers may be used for packing glassware. Heavy cardboard boxes may also be used for packing flatware, kitchen utensils, and other non-breakable items such as linens and paper goods. Some dishes may need to be wrapped in cloth before being placed in carrying cases. Transportation of small equipment is discussed in the reading assignment.



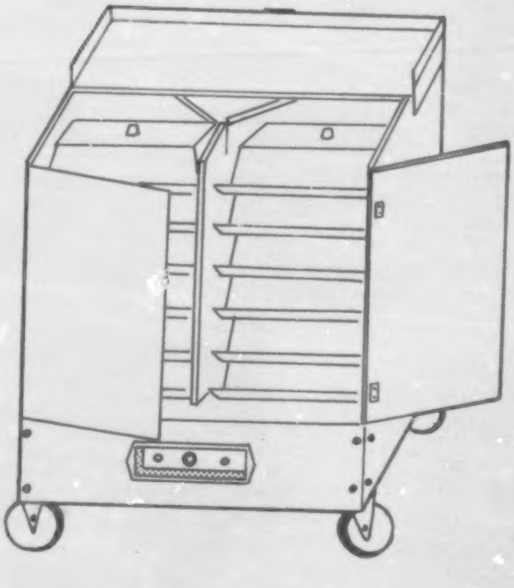
Bakery cart



Banquet cart



Cart used in hospital



Banquet cart

QUESTIONS:

1. Three major objectives of food service operations that transport food from one location to another are to maintain ______________________, ______________________, and ______________________ of the food.

2. List three types of food carriers that are used when transporting food.
   a.
   b.
   c.

3. The type of equipment needed to transport food from one location to another is determined by ______________________.

4. The type of food cart which is loaded with the correct number of served trays and then transported is called a ______________________.

5. The type of food cart used to move larger amounts of food from a central kitchen to another location where the food is served is called a ______________________.

6. The type of cart used to deliver served plates to large groups of diners is called a ______________________.

7. The type of cart used to transport baked products is called a ______________________.

8. The term used by caterers to refer to all equipment for guest service, portable equipment, linens, paper goods, and novelties is ______________________.

9. Glasses, punch cups, and cups should be placed in heavy-duty cardboard or wooden boxes fitted with ______________________ and ______________________.

10. Flatware, linen, kitchen utensils, pots and pans, pitchers, and coffee urns used in catering are usually transported in ______________________.

ASSIGNMENT:

1. List the steps you would take at your training station when transporting food and equipment such as dishes and glassware. Compare your list to other students' lists. What did you do differently?

GROUP WORK:

1. Get cardboard boxes from a local store. Pack dishes so that they could be transported safely to another location. Share your packing techniques in a "packing demonstration" to be presented to the class.

UNIT VI-1

LARGE EQUIPMENT FOR FOOD PREPARATION AND SERVICE

SUBJECT: Cleaning and Disposal Equipment

TASK: 16. Select and use correctly proper piece of equipment for tasks in food preparation, transportation, and service.

OBJECTIVES: When you finish this lesson, you should be able to

a. identify parts of the commercial dishwasher
b. describe procedure for operation of a commercial dishwasher
c. list precautions in using and caring for the commercial dishwasher
d. describe use and care of a garbage disposer.

REFERENCE: Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 289, 294-298.

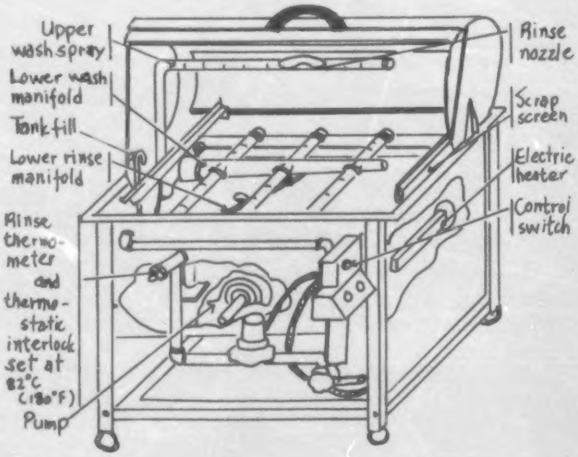
COMMERCIAL DISHWASHER AND POT AND PAN SINK

The use of mechanical dishwashing in dietary kitchens and food service operations has grown tremendously in recent years. Owners and operators of food service establishments have learned that mechanical dishwashing is more effective and faster than hand dishwashing, and that it takes less personnel to do the job.

There are many types of mechanical dishwashing machines, but all of them require the same basic steps for effective dishwashing. These steps are scraping, prewashing, racking, washing (in machine), rinsing, sanitizing, air-drying, and storing clean utensils until the next use.

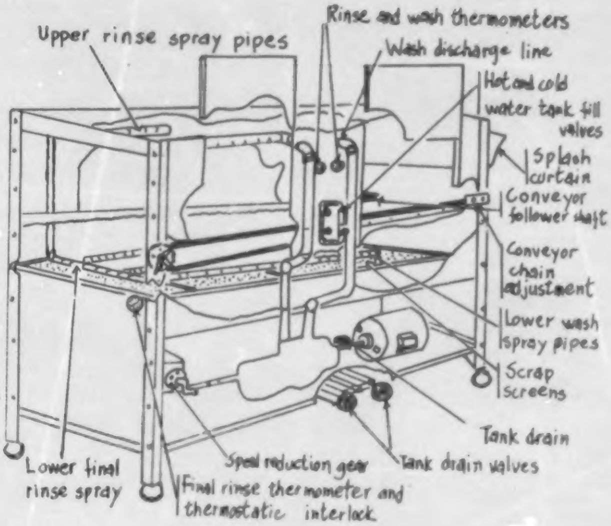
The types of dishwashing machines fall generally into two categories, commonly referred to as single-tank and multiple-tank machines. *Single-tank machines* are used in smaller establishments, for specialized operations in larger establishments, or in areas where space and weight are of prime consideration. The machines have a single tank for wash water. The tank varies in capacity depending on the manufacturer and the particular model of the machine. The pump recirculates the wash water to spray each rack of dishes placed in the machine.

The most common single-tank machines are the door-type and the conveyor-type. The *door-type* machine has two doors that can be raised and lowered to admit dishes into the machine. Usually these two doors are interlocked so that if one door is raised or lowered, the other is also raised or lowered. When lowered into place, the doors provide a watertight compartment in which washing can occur without splashing wash or rinse water outside the machine. The other single-tank machine is the *conveyor-type.* Racks filled with utensils and tableware move through the machine on a *conveyor chain,* a continuous moving Belt.



The *multiple-tank machines* are used in large food establishments where large numbers of utensils are washed. They are manufactured in several sizes which are capable of washing from 6,000 to 18,000 utensils per hour. The most commonly used multiple-tank dishwashing machines are the *flight-type machines.*

Instead of being conveyed through the machine in racks, utensils and tableware are placed individually on a continuous belt that carries them into, through, and out of the machine.


Upper rinse spray pipes
Rinse and wash thermometers
Wash discharge line
Hot and cold water tank fill valves
Splash curtain
Conveyor follower shaft
Conveyor chain adjustment
Lower wash spray pipes
Scrap screens
Tank drain
Tank drain valves
Speed reduction gear
Final rinse thermometer and thermostatic interlock
Lower final rinse spray

The conveyor belts on the dishwashing machines are continuous and return underneath the machine to be reloaded with more utensils or racks of utensils. Operators are located at the start of the machine to load the conveyor belt with utensils, and one or more operators are located at the exit end of the machine to remove the utensils from the belt before it passes underneath the machine for a return trip. Since the utensils are at a temperature of nearly 180° F. (85° C.), which is too hot for the hands, the workers must use clean, asbestos gloves to protect their hands from the heat of the utensils.

It is important to follow the directions for the operation and care of the particular dishwashing machine at your training station. General instructions for the operation and care of dishwashers are given in the reference (Cornelius, pp. 294-298).

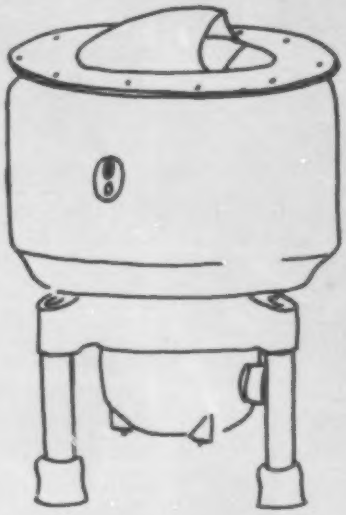
Cleaning large or bulky utensils, such as pots and pans, requires conscientious effort on the part of employees. It is just as important to wash and sanitize the pots and pans as any other utensil used in either the preparing or serving of food. Pots and pans are usually washed in a three-compartment sink. One of the compartments is used for washing, another for rinsing, and the third for sanitizing. The sanitizing techniques are essentially the same as for other utensils.

Clean the dishwashing equipment thoroughly at the end of each washing period and have the equipment ready for the next shift. General instructions for cleaning a dishwashing machine are given in the reference.

GARBAGE DISPOSER

The sanitary disposal of waste is of great importance to the operation of a dietary kitchen or food service establishment. One of the best ways to dispense of waste is to use a garbage disposer, where garbage is ground to a pulp and carried into the sewer line.

To operate the garbage disposer, press the "On" switch. This turns on the water and starts the action of the knife blades, which do the grinding. Feed garbage into the disposer gradually, being careful not to overload the machine. Check to see that there are no large bones, corncobs, cabbage cores, silverware, or other items which would damage the knives in the disposer. *Keep fingers and hands away from knife blades.*



When grinding action is completed, allow the machine to run at least five minutes longer to make sure that all garbage has been washed away from the knife blades.

To clean the disposer, turn the switch to "Off" position. Remove the cover and wash the inside and outside with water and a mild detergent. Rinse with clear water and dry.

When a garbage disposer is not available, keep the garbage covered in sanitized garbage cans. The containers should be covered with tight-fitting lids or covers. Plastic bags are now used as liners to keep the containers cleaner. All waste should be removed from the premises daily. After the containers have been emptied, clean the inside and outside thoroughly. This cleaning should be done in a place where food, equipment, utensils, or food preparation areas will not be contaminated.

QUESTIONS:

1. List the basic steps for effective dishwashing.
   a.
   b.
   c.
   d.
   e.
   f.
   g.
   h.

2. Name the two categories of dishwashing machines.
   a.
   b.

3. How should cups and glasses be placed in the dishwashing machine?

4. An important rule to remember when loading the dishwasher is:

5. How should silver be placed in the silver racks?

6. What is the recommended temperature for wash water used in the dishwashing machine?

7. What are the three compartments of the pot and pan sink used for?

In Items 8-12, place an X in the blank by the letter of the phrase that best completes the sentence.

8. The most adequate means of waste removal from a dietary kitchen or food service institution is
   _____ a. selling it to local farmers.
   _____ b. a garbage disposer unit.
   _____ c. an incinerator.
   _____ d. a sanitary landfill.

9. When the garbage disposer is turned on, water flows into it and the grinding blades are
   _____ a. activated.
   _____ b. stationary.
   _____ c. suspended.
   _____ d. stopped.

10. The garbage should be fed into the machine
   _____ a. all at once.
   _____ b. rapidly.
   _____ c. gradually.
   _____ d. in chunks.

11. To be certain all garbage is washed away from the blades, the machine should run for five minutes after
   _____ a. the water is turned off.
   _____ b. all food has been ground.
   _____ c. the blades have stopped.
   _____ d. the food has been put in the disposer.

12. Garbage should be removed from the premises
   _____ a. every other day.
   _____ b. daily.
   _____ c. once a week.
   _____ d. every three days.

ASSIGNMENT:

I. Analyze the procedure you use when washing dishes. What can you do to improve your organization of this task? (Consult the reference for ideas.)

GROUP WORK:

I. Compare the type of dishwashing machine used at your training station with the types used by other health care and food service employees.

II. View a film or observe a demonstration on the operation of dishwashing machines. Compare the operation of the dishwashing machine in the film with the one used at your training station.

UNIT VI-2

LARGE EQUIPMENT FOR FOOD PREPARATION AND SERVICE

SUBJECT: Cold Storage Equipment

TASK: 16. Select and use correctly proper piece of equipment for tasks in food preparation, transportation, and service.

OBJECTIVES: When you finish this lesson, you should be able to
- a. state procedure for proper use and care of cold storage equipment
- b. describe trouble signals in refrigeration.

REFRIGERATORS

A refrigerator cools food and keeps it cool. A temperature below 45° F. (7.2° C.) in the refrigerator helps to prevent spoilage of leftover food by removing the heat as soon as possible. It also serves to chill those foods which taste better when eaten cold. In addition to the household-size refrigerators, walk-in and reach-in refrigerators are used by food service establishments and dietary departments. Smaller refrigerators may be located away from the regular food preparation area for convenience in serving desserts, salads, and butter. The pass-through refrigerator is used between the kitchen and the serving area. Food items such as salads can be made in the food preparation area and placed in the pass-through refrigerator. Serving personnel can open the door on their side of the pass-through refrigerator and obtain the prepared food. The pass-through refrigerator saves steps for food preparation and serving personnel.

Storage in the Refrigerator

Temperatures vary in different parts of the refrigerator. These variations are due to the circulation of air near the cooling coils. It is important, then, that refrigerators not be crowded. Containers should be placed so that the circulation of air is not hampered.

Guidelines for Proper Storage in Different Areas of the Refrigerator

Cold	*Colder*	*Coldest*	*Freezing Compartment*
Raw fruits	Cooked meats	Milk	All frozen foods, desserts to be frozen
Vegetables	Eggs	Cream	
	Butter	Raw meat, fish, poultry	
	Cooked foods containing any of above ingredients		

Hints for Best Refrigeration of Foods

1. Containers should be dry and covered before they are placed in the refrigerator.
2. Doors should be opened only when necessary. Outside air carries moisture and causes frost to form.
3. Hot food should be placed in the refrigerator to speed cooling.
4. *Do not obstruct mechanical units.* Place food so that it does not crowd the cooling unit. Keep rags, aprons, and trays off the equipment enclosure.

Safety Precautions

Do not attempt to adjust, repair, or lubricate any electrical or mechanical parts of refrigerators. If these parts are not performing properly, notify your supervisor.

Trouble Signals to be Reported to the Supervisor

1. Excessive cooling indicated by frosting on coils.
2. Unusual noises or vibrations.
3. Failure to operate or maintain temperature.

Care of Refrigerators

Clean the reach-in refrigerator daily by wiping immediately any food that has spilled. With a damp cloth wipe the inside and outside of the doors and door gaskets, and the exterior of the refrigerator.

The weekly procedure for cleaning the reach-in refrigerator is to turn off the switch and disconnect the plug from the outlet. Remove food from the refrigerator and cover or wrap the food to minimize temperature changes. To clean the interior of the refrigerator, wash the shelves, walls, and inside of the doors with warm water. Add baking soda (one tablespoon baking soda to one quart of water) to prevent odors. Do not use vinegar, salt, or *caustic* agent (any chemical that burns or eats away) in cleaning solutions. Rinse with warm water to which a sanitizer has been added. Do not use powders that will scratch the finish in cleaning the refrigerator. Do not use ammonia or scouring pads. Inspect foods carefully for quality. Do not return even slightly spoiled or contaminated food to the refrigerator. Insert the plug and turn on the switch of the refrigerator.

The walk-in refrigerator should be cleaned daily by immediately wiping up food that has spilled. The inside and the outside of doors should be wiped with a damp cloth.

The weekly procedure for cleaning the walk-in refrigerator is to turn off the switch, remove the plug from the outlet and remove the food. The food should be covered or wrapped to minimize temperature changes. Using a stiff brush, remove and wash all portable equipment with a hot detergent solution. Pull out and wash the shelves with the solution. Rinse and dry. Clean the interior of the walk-in refrigerator by scrubbing the walls, door, stationary equipment, and floors with a hot detergent solution and a stiff brush and mop. To keep walk-in refrigerators free of odors use a sanitizer. Rinse thoroughly. Flush drain pipes with hot water and baking soda. Wash the exterior with hot detergent solution. Rinse with water that contains a sanitizer, and dry the surface. Use a clean mop and mop the floor with warm water and a sanitizer. Inspect foods carefully for quality. Put foods in clean containers and return them to the refrigerator. Insert the plug and turn on the switch.

Defrost refrigerators when frost is ¼ inch thick on coils or other parts of the interior. If necessary, see the manufacturer's directions for specific instructions. Always clean the refrigerator after defrosting.

Thermometers should be provided on all refrigerators, and temperature readings should be taken daily. Many walk-in refrigerators have a recording thermometer which registers the temperature throughout a twenty-four hour period. Alarm bells or signals are placed on walk-in refrigerators to operate when the refrigerator is not functioning. The following temperature ranges are a guide when separate refrigeration is available for different types of food: dairy products 38° - 45° F. (3.3° - 7.2° C.); fruit and vegetables 44° - 45° F. (6.6° - 7.2° C.); meat and poultry 33° - 36° F. (.5° - 2.2° C.). Where one refrigerator is used for all refrigerated storage, a temperature of 35° - 45° F. (1.7° - 7.2° C.) is recommended.

Guide to Using Refrigerators

1. Check operation of walk-in refrigerator first thing in the morning and before leaving in the afternoon.
2. Check constantly with accurate thermometer to see that proper temperature is maintained in refrigerator.
3. Check to see that the door of a walk-in refrigerator opens from the inside.
4. Open refrigerator door only when necessary. Collect all items needed in one trip by using a wheeled cart.
5. Place foods used most frequently nearest the door.
6. Place foods in the proper section of the refrigerator, since various food items require different degrees of temperature and humidity.
7. Always use same general area of the refrigerator for the storage of each food, thus avoiding hunting around, which causes loss of cold air.
8. Store foods that absorb odors away from those foods that give off odors.
9. Avoid crowding refrigerator, as good circulation is of major importance. Overloading also causes the temperature to rise.
10. Bring older foods toward front so that they will be used first. Immediately remove foods showing signs of spoilage.
11. Cooked foods require quick cooling and should be refrigerated within 2-3 hours to avoid danger of food-borne illness.
12. Do not store foods that do not need refrigeration in refrigerator.
13. Stack rectangular pans crisscross to use shelf space efficiently.
14. Store food properly in the refrigerator: cover cooked foods; cover most raw foods; loosely cover raw meat; store salad greens in large polyethylene bags; always remove outer wrappings that would interfere with air circulation and might introduce contamination. Label all leftovers.
15. Wipe up water and spilled foods immediately.

FREEZERS

Store frozen food at 0° F. (-17.8° C.) or lower. Frozen foods held at temperatures above 0° F. (-17.8° C.) lose color, flavor, and other quality factors. Check the temperature of the freezer frequently, as quality loss occurs quickly if temperatures rise.

Frozen food should be frozen solid when it is received. Purchase frozen food from a source that has stored it at 0° F. (-17.8° C.) or lower, and do not accept damaged packages or ones with frozen ice crystals on the outside, which indicate thawing and refreezing. Broken wrappings may lead to moisture loss and drying out and may also indicate careless handling and storage. Place frozen foods in the freezer as soon as they are received and date the packages so that the oldest items are used first. All items placed in the freezer should be wrapped to prevent freezer burn or *dehydration,* which is the loss of water from foods.

Refreezing frozen foods is unwise because of possible undesirable changes in flavor, color, or texture. Frozen food that has thawed completely should not be refrozen without cooking because there may have been growth of bacteria.

Freezing of food should be done rapidly at a very low temperature. Only commercial freezing operations are equipped to do this. Food can be frozen satisfactorily at 0° F. (-17.8° C.) if the amount of food to be frozen is limited so that quick and efficient freezing is possible.

Thermometers should be provided on all freezers. Temperature readings should be taken daily to check the performance of the freezer. The walk-in freezer should have an alarm system which may be sounded in case of accidental entrapment. Bells or signals should be placed on freezers to sound when the freezer is not functioning.

Care of Freezers

Clean the freezer daily by wiping the exterior with a damp cloth. Once a week wash the exterior of the freezer with a hot detergent solution. Rinse the exterior with a water and sanitizer solution and dry the surface.

Defrost the freezer once or twice a year as needed, when frost becomes 3/8-inch thick on sides or coils. When defrosting the freezer, disconnect the freezer by removing the plug from the outlet. Remove all food packages; cover or wrap them and place them in the walk-in refrigerator, if possible. Scrape as much frost as possible from the surfaces with a broad, stiff plastic spatula or a special tool. Use caution when scraping ice; never use a knife, ice pick, or other sharp object. You may use cold water to run over the refrigerated surfaces. Never use hot water. Removing ice from the surface at intervals, as it loosens, speeds the defrosting process. Wash the interior and inside of doors with warm water and baking soda (one tablespoon baking soda to one quart of water). To keep freezers free of odors, use a sanitizer. To clean the exterior, wash with a hot detergent solution, rinse with water and sanitizer solution, and dry. Insert the plug; then turn on the switch. Let the freezer run for at least half an hour to bring the temperature down before replacing the frozen food packages.

Inspect food packages and containers to make certain they are in good condition. Take an inventory and place older packages and containers at the front or top of the freezer for use first.

*Guide for Using Freezers**

1. Check operation of freezer first thing in the morning and before leaving in the afternoon. Do not stack boxes on or near freezers. This lessens cooling efficiency.
2. Check frequently to see that proper temperature 0° F. (-17.8° C.) or below is maintained. Temperatures above 0° F. (-17.8° C.), even for brief periods of time, cause products to lose quality.
3. Open freezer door only when necessary; make certain door is closed tightly and sealed. Collect all items needed at one trip by using wheeled cart.
4. Store foods in original shipping containers, if possible, to reduce the possibility of freezer burn and drying out of the foods.
5. If the original containers have been damaged or if space does not permit storing in shipping containers, rewrap individual packages of food in moisture- and vapor-proof packaging material before placing in freezer.
6. If frozen foods have thawed, do not refreeze. If in quality condition, use immediately or refrigerate and use within 24 hours.
7. When freezing freshly cooked foods, chill food promptly and thoroughly; then package in moisture- and vapor-proof materials or containers to exclude air and prevent loss of moisture. To assure uniform and rapid freezing, place packages in contact with freezing surface and not with each other.
8. Do not open freezer if current goes off. If the current if off for less than 48 hours, wrap dry ice in paper; open lid or door just long enough to put dry ice over food and close immediately. If current remains off for more than 48 hours, move food to 0° F. (-17.8° C.) storage; make transfer quickly and with as little handling as possible.
9. When defrosting, do not chip ice off with ice pick or other sharp tool that might damage liner surface or coils. Use broad, stiff spatula, a putty knife, or special tool. Do not use hot water.
10. After defrosting, inspect food packages and containers to maker certain they are in good condition. Take an inventory and place older packages and containers at front or top of freezer for use first.

Safety Precautions for Cold Storage Equipment

Do not attempt to adjust, repair, or lubricate any electrical or mechanical parts of refrigerators or freezers. If these parts are not performing properly, notify the supervisor. Some trouble signals to be reported to the supervisor include excessive cooling indicated by frosting on the coils, unusual noises or vibrations, failure to operate, or failure to maintain proper temperature.

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*U.S. Department of Agriculture. *Training Course Outline on Use and Care of Equipment.* Washington, D.C.: U.S. Government Printing Office, 1960. p. 102.

QUESTIONS:

1. When storing food in the refrigerator, you should place items so that air may __________ freely around containers.

2. In order to prevent refrigerated foods from drying out, you should __________ all containers.

3. Opening the door of a refrigerator only when necessary helps prevent __________ formation.

4. Raw meats, fish, and poultry should be stored in the __________ part of the refrigerator.

5. Frost should be removed from the refrigerator when it has built to a __________ -inch thickness.

6. How often should door gaskets be wiped clean? __________

7. A solution of __________ may be used to help prevent odors in the refrigerator.

8. Frozen food should be stored at __________ or lower.

9. To prevent dehydration, you should __________ all food items placed in the freezer.

10. Older packages and containers should be arranged in the freezer for use __________.

11. When it has built to a __________ thickness on sides or coils, frost should be removed from the freezer.

ASSIGNMENT:

I. List the cold storage equipment wich you use at your training station. What procedures do you follow when using freezers and refrigerators at your training station? What procedures do you follow in the care of these pieces of equipment?

GROUP WORK:

I. With other food service employees, discuss the procedures used at each training station for use and care of cold storage equipment. Compare the safety precautions followed when cleaning the equipment.

II. View a filmstrip or observe a demonstration on the principles of refrigerated food storage. Compare the procedure for food storage shown in the filmstrip or demonstration with the procedure used at your training station.

UNIT VI-3

LARGE EQUIPMENT FOR FOOD PREPARATION AND SERVICE

SUBJECT: Beverage Equipment

TASK: 16. Select and use correctly proper piece of equipment for tasks in food preparation, transportation, and service.

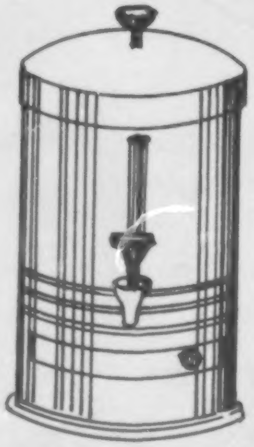
OBJECTIVES: When you finish this lesson, you should be able to
a. identify parts of coffee makers
b. describe procedures for operation and care of coffee makers
c. describe procedures for making tea
d. explain procedures for care of pumps and dispensers
e. summarize procedures for care of ice-making machines.

REFERENCE: Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 142-143.

In food service and dietary kitchens, coffee is generally made in either a coffee urn, a vacuum coffee maker, or an automatic coffee brewer. Before operating the equipment, read the directions for use of the equipment or observe someone demonstrating its use.

Coffee makers for instant coffee are also available. These may be made of stainless steel, silver, nickel, chrome, or other less durable metals. Glass and porcelain do not give off metallic flavors, but they require extra care to avoid chipping and breaking.

COFFEE URN



The coffee urn has an inside container made of glass or stainless steel which holds the coffee brew; an outside jacket holds both hot water to keep the coffee warm, and filters of muslin, metal, or paper. Urns operate on gas, electric, or steam power.

The following procedure should be followed when operating the coffee urn:

1. Rinse the coffee urn thoroughly with hot water before using.
2. Fill the urn with fresh, cold water and heat to boiling.
3. Place clean filter into urn basket or fit clean bag into urn. (Filters may be paper, cloth, perforated plates, or wire screens.)
4. Pour correct amount of dry coffee into filtering device, spread evenly, and add water.
   a. *If urn is not self-pouring,* release a gallon of boiling water into a container and pour over dry coffee with a steady, circular motion. Continue to add water until the correct amount is in the urn. Generally, water level is determined by a water gauge.
   b. *If urn is self-pouring,* allow steam pressure to force hot water over dry coffee through a nozzle head, and watch water gauge to determine amount of water being added.

5. Hold temperature at 185° F. (85° C.) for amount of time required for coffee to brew.
6. Remove bag of grounds from urn, dump grounds immediately, wash bag thoroughly, and soak bag in cold water.
7. Release a gallon of coffee from the urn and pour back into top of urn, using a mixing action to produce a unified blend.
8. Check temperature gauge again, and maintain a temperature of 185° F. (85° C.) until coffee is served.

The areas of the coffee urn which require special care in cleaning are faucets, glass gauges, urn bags, and metal filter baskets. The coffee urn should be cleaned immediately after each brewing. To clean the coffee urn:

1. Brush inside walls well using hot water. Rinse urn until hot water runs clean and clear. Rinse inside of cover.
2. Unscrew top of glass gauge, brush, and rinse.
3. Remove and clean cap at end of faucet; scrub pipe leading from center of urn. If faucet has no caps, take it apart. Scrub spigot and rinse thoroughly with hot water.
4. Place several gallons of fresh water in urn; leave cover slightly ajar.
5. Empty and rinse urn before using.

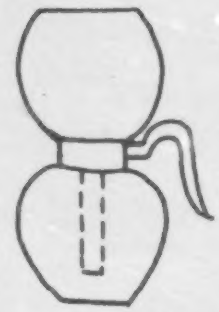
Twice a week, the urn should be cleaned more thoroughly by the following procedure:

1. Fill outer jacket three-fourths full of water and turn on heat; fill urn jar three-fourths full of water and add cleaner according to manufacturer's directions. Warn other employees you are cleaning the urn.
2. Clean gauge, faucet, pipes, plugs, and other parts with long, thin brush and cleaner. Take faucet apart, clean well, rinse thoroughly, and reassemble.
3. Scrub and rinse inside of urn three or four times with hot water; continue until all traces of cleaning solution are removed.
4. Check spray heads to see that all holes are open; use stiff wire to open any clogged holes.
5. Leave a few gallons of fresh, warm water in urn until next use. It is important that water is warm since cold water may crack hot liner.
6. Empty urn and rinse before use.

Some pointers to keep in mind when cleaning filters, urn bags, and baskets are the following:

1. Rinse new bags or cloth filters with water at 140° F. (60° C.) to remove sizing.
2. Rinse in hot water after use. (Do not use soap, bleach, or detergent, as they affect the flavor of brewed coffee.)
3. Store urn bags and filter cloths in clean container of fresh, cold water when not in use in order to prevent them from becoming rancid or picking up food odors.
4. Replace bags or filter cloths if undesirable odor persists.
5. Rinse urn basket after each use and clean thoroughly at end of day.
6. Scour with cleaner and stiff brush. Never use steel wool or abrasive.
7. Rinse urn basket thoroughly after cleaning.
8. Guard against pits, small nicks, and scratches, all of which may catch dirt or coffee deposits.

VACUUM COFFEE MAKER



The vacuum coffee maker has a glass or metal upper bowl and a glass or metal lower bowl. The neck of the upper bowl fits through the opening of the lower bowl to form a tight seal. Vacuum coffee makers range in size from a single burner unit to a terraced unit with eight burners and decanters. The decanters hold 10-12 cups, or a half-gallon of coffee.

To operate the vacuum coffee maker, fill the lower bowl to the correct level with fresh, cold water and place the coffee maker on the heat. Rinse the clean filter cloth in cold water; place the cloth over filtering device in the top bowl. Pour the measured coffee into the top bowl. When the water begins to boil, place the top bowl firmly into lower bowl and twist the top bowl slightly. Allow water to be forced up into the top bowl. Stir the water in the top bowl for 30 seconds. Allow the water to contact coffee for 2 to 4 minutes. Reduce the heat to create a vacuum in bottom bowl. The vacuum pulls the brewed coffee down through a filter. When the brew has filtered back into the lower bowl, remove the upper bowl and the grounds. Set the brew over the heat to maintain a 185° F. (85° C.) temperature.

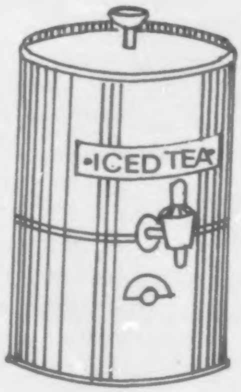
Clean vacuum coffee makers after each use. Use a brush to scrub all parts of the top and lower bowl. Rinse the bowls, filter parts, and filter cloths thoroughly. Keep the filter cloth in cold water when the cloth is not in use. Twice a week soak all parts in a cleaner. Scrub and rinse the coffee maker well until all coffee deposits are removed. Clean the hot plates used for holding the pots with a damp cloth and dry them.

The proper cleaning of equipment is necessary to produce a cup of coffee of high quality. Deposits in the equipment ruin the flavor of the coffee. Some of these deposits are not visible, but they take the form of a thin film of oil which can cause an "off-flavor" in the coffee. Proper cleaning supplies and equipment should be used, and cleaning should be done by an experienced employee.

TEA CONTAINERS

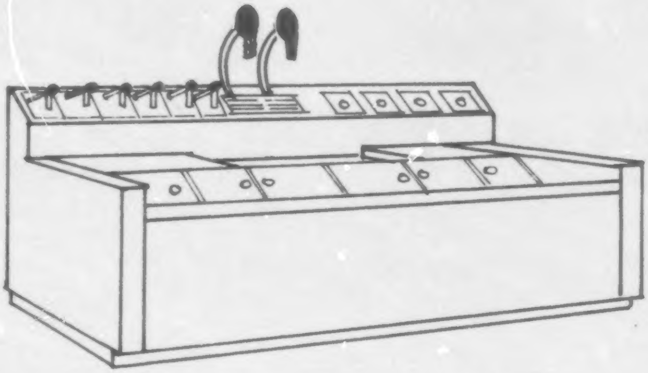
In food service, tea is usually prepared in small teapots. Use a clean china, porcelain, pottery, or stainless steel teapot when brewing tea. Avoid using metallic pots, as they give a metallic taste to the tea. Rinse the container, using hot water to preheat the container before adding the tea.

A tea-making machine is available now in many health care and food service establishments. This machine combines powdered tea with freshly boiled water and dispenses fresh tea at the touch of a lever.



Sometimes tea is made in a large container called a tea urn. Clean the tea urn daily. Flush the empty urn with clear water. Scrub and wash all parts of the urn with hot water and a cleaner recommended by your training sponsor. Take the faucet apart, clean well, rinse thoroughly, and reassemble. Clean the faucet each time the urn is cleaned because deposits which give the tea a bitter taste accumulate in the faucet. Rinse the urn with fresh water. Invert the tea urn and let it air-dry. *Delime* (clean by using a warm deliming solution) the tea urn once a week to remove any mineral deposits that may have accumulated.

PUMPS AND DISPENSERS



In the food service industry, pumps and dispensers are an important part of counter service equipment. Pumps and dispensers are found on soda fountains for syrups and toppings, on soft drink fountains, on milk dispensing machines, and on serving carts for hot or cold beverages.

The fountain units containing the pumps and dispensers are available in various sizes. The larger units contain storage for ice cream, dispensers for syrups, soda (carbonated water), water, and various soft drinks. The smaller units may contain only the water, soda, and syrup dispensers. The size of the fountain unit varies with the food service establishment.

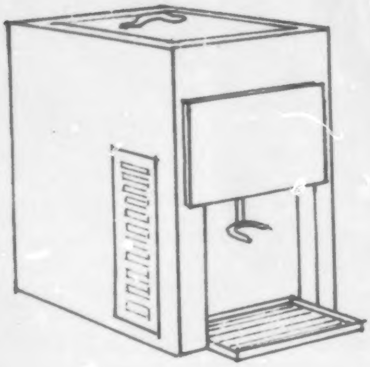
Clean the cream and milk pumps and dispensers daily. To clean pumps or dispensers, empty and rinse them with lukewarm or cold water. Avoid using hot water to rinse the pumps or dispensers since the hot water sets the milk residue and the dispenser or pump is harder to clean. After rinsing, brush the surface of the dispenser or pump with a cleaning solution, and rinse it with clean water. Soak the dispenser or pump in a sanitizer-cleaner for the time specified on the product label. Drain the solution from the equipment and air-dry. Twice a month, apply an acid product solution to remove protein build-up or milkstone from the milk pump or dispenser. Rinse the equipment with warm water, sanitize, and air-dry.

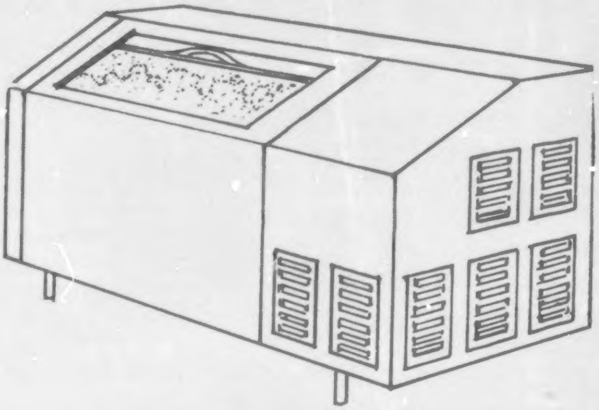
Some food service establishments use syrup and soft drink dispensers which have a tube connecting the dispenser to faucets or draft arms on the counter. Many carbonated drinks, such as lemon, lime, orange soda, and others known by brand names, are available as syrups in their own dispenser units. The flavoring syrup is mixed with soda water according to the directions on the bottle of the syrup. Carbonated soft drinks are available in individual portion bottles and cans and in quart-size containers. Soda water is also available in a dispenser unit. Opened containers of carbonated drinks may lose their carbon dioxide and have a flat taste. They should be kept cold, as refrigeration helps to keep the carbonation in opened soft drinks.

Fruit juices are used in the fresh state as well as in concentrated forms. Some fresh juices are available in a pasteurized form in quart and gallon sizes. Many of the fruit juices are available in dispenser units.

It is important to follow the manufacturer's directions for the use and care of dispensers where you are employed. Keep this equipment thoroughly clean. If it is not clean, the equipment can accumulate food particles and other soil that supports the growth of bacteria. Keep the counter and work area around the dispensers clean and sanitary at all times. Wipe up spills immediately.

ICE-MAKING MACHINES





Ice is used in most health care and food service establishments. Ice machines that make cubes, flaked ice, and cracked or chipped ice are available. Ice machines vary in size, producing from 100 to 5,000 pounds of ice per 24 hours. There are ice machines that produce individual portions for self-service operations. Some ice-making machines are combined with the water coolers and the soft drink dispenser units.

The exterior of the ice-making machine should be cleaned daily with a damp cloth. Dry and polish the machine with a soft cloth. Periodically defrost the ice maker according to the manufacturer's directions. To clean the interior of the ice maker, wipe the inside with a cleaning solution. Rinse the interior with room-temperature water and air-dry.

Use a scoop to remove ice from the bins of the ice-making machine. When the scoop is not in use, store it in a sanitary manner to protect it from water splashes, dust, and other contamination. Keep the lid to the bin closed to keep it sanitary, and to prevent excessive changes in temperature. If a glass is broken in the ice used for beverages, melt the ice completely with hot water and drain the bin. Carefully examine the bin before placing fresh ice in the bin.

QUESTIONS:

1. Why is cleanliness of the coffee maker essential?
2. Why should you avoid using metallic pots when preparing tea?
3. Why should you avoid using hot water to rinse the cream and milk pumps or dispensers?
4. List three carbonated drinks:
   a.
   b.
   c.

5. What may happen to opened carbonated drinks that are not refrigerated?

6. Name three types of ice used in food service establishments.
   a.
   b.
   c.

7. How should ice be removed from bins?

8. What should be done if a glass is broken in the ice bin?

Certain equipment and supplies are needed in cleaning a coffee urn. In Items 9-11, select the appropriate letter indicating the frequency of use for the equipment and supplies. Place the letter of your choice in the blank to the left of the equipment and supplies.

Equipment and Supplies	*Frequency of Use*
______ 9. Cleaner	a. After each use
	b. Twice weekly
______10. Brushes	c. Both a and b
______11. Hot water	

In Items 12-28, place an X in the blank by the letter of the phrase that best completes the sentence.

12. New coffee urn bags or cloth filters should be rinsed with water at 140° F. (60° C.) to
    ______ a. kill bacteria.
    ______ b. remove dust.
    ______ c. make colorfast.
    ______ d. remove sizing.

13. After using a cloth or bag filter in the coffee urn,
    ______ a. rinse the filter in hot water.
    ______ b. rinse the filter in strong bleach.
    ______ c. don't rinse the filter.
    ______ d. rinse the filter in cold water.

14. To prevent the bag or cloth filter from becoming rancid,
    ______ a. hang the filter on the line in fresh air.
    ______ b. store the filter in a clean container with fresh, cold water.
    ______ c. soak the filter in water to which detergent has been added.
    ______ d. wash the filter in a washing machine.

15. Urn bags or filters should be replaced
    ______ a. when they become stained.
    ______ b. after each use.
    ______ c. when undesirable odors persist.
    ______ d. when coffee taste is affected.

16. The urn basket should be cleaned at the end of the day with
______ a. bleach and cold water.
______ b. steel wool.
______ c. an abrasive cleaner.
______ d. an urn cleaner and stiff brush.

17. The vacuum coffee maker should be cleaned after each use with
______ a. bleach and hot water.
______ b. an abrasive cleaner and a brush.
______ c. a brush and hot water.
______ d. a brush and cold water.

18. The vacuum coffee maker needs to be cleaned twice weekly by
______ a. soaking all parts in a cleaner.
______ b. scrubbing all parts with steel wool.
______ c. soaking all parts in a strong bleach.
______ d. soaking all parts in hot water.

19. The coffee urn should be filled with
______ a. hot, tap water.
______ b. fresh, cold water.
______ c. distilled water.
______ d. mineral water.

20. Used coffee grounds should be
______ a. dumped immediately after the coffee is brewed.
______ b. set aside for second use.
______ c. left in the urn until it is ready to clean.
______ d. removed before coffee is completely brewed.

21. Drawing or releasing a gallon of the brewed coffee and pouring it back into the urn is done to
______ a. cool the brewed coffee.
______ b. improve the flavor by adding air.
______ c. remove bitterness from the coffee.
______ d. improve the flavor by giving the coffee a unified blend.

22. Clean filter cloths for coffee makers should be rinsed before using in
______ a. detergent and bleach.
______ b. cold water.
______ c. a strong soda solution.
______ d. hot water.

23. Filter cloths are placed over the filtering device in
______ a. the lower bowl of the vacuum coffee maker.
______ b. both bowls of the vacuum coffee maker.
______ c. the top bowl of the vacuum coffee maker.
______ d. either the top or bottom; it doesn't matter.

24. When the top bowl is placed on the lower bowl of the vacuum coffee maker, the water in the lower bowl should be
______ a. cold.
______ b. warm.
______ c. hot.
______ d. boiling.

25. Water is forced from the lower bowl into the top bowl by
______ a. heat.
______ b. cold.
______ c. gravity.
______ d. pressure.

26. When the water has been in contact with the coffee for the correct length of time, one should
______ a. remove the filter.
______ b. increase the heat.
______ c. reduce the heat.
______ d. make a small opening in the filter.

27. The brewed coffee will return to the lower bowl of the vacuum coffee maker because of the
______ a. density of the brew.
______ b. vacuum created in the lower bowl.
______ c. temperature in the lower bowl.
______ d. gravity.

28. After the coffee returns to the lower bowl, the upper bowl should be
______ a. left in place.
______ b. removed.
______ c. twisted slightly to ensure a tight fit.
______ d. filled with more water.

ASSIGNMENT:

I. List the types of beverage equipment used at your training station. Outline the procedures used to prepare coffee and tea.

GROUP WORK:

I. Compare the beverage equipment used in your training station with equipment used by other dietary food service employees.

II. View a film on brewing coffee, the procedures for making coffee, trouble spots, and equipment. Compare the procedures shown in the film with the ones used at your training station.

UNIT VI-4

LARGE EQUIPMENT FOR FOOD PREPARATION AND SERVICE

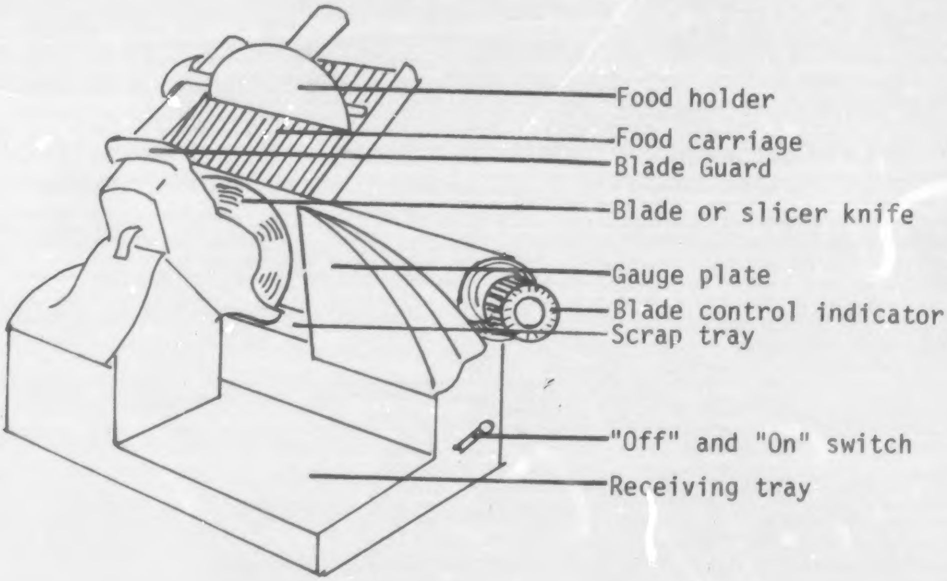
SUBJECT: Food Cutting Equipment

TASK: 16. Select and use correctly proper piece of equipment for tasks in food preparation, transportation, and service.

OBJECTIVES: When you finish this lesson, you should be able to

a. identify parts of food cutting equipment
b. describe porcedure for operation of food cutting equipment
c. list safety precautions related to use of food cutting equipment.

FOOD SLICER


Food holder
Food carriage
Blade Guard
Blade or slicer knife
Gauge plate
Blade control indicator
Scrap tray
"Off" and "On" switch
Receiving tray

The food slicer is used for slicing meats and cheese. Fruits (apples, oranges, lemons, etc.), vegetables (tomatoes, cabbage, onions, celery, etc.), and bread may be sliced by the food slicer. The food slicer can be used for cutting hot or cold foods.

HOW TO OPERATE A FOOD SLICER

Caution: Instructions given below are general. Read and follow manufacturer's directions carefully.

What To Do	*How To Do It*
1. Put plug into socket.	1. Plug in. *Note:* Be sure cord is dry and free from grease to avoid short circuits. Be sure that hands are dry to prevent shock.
2. Adjust indicator.	2. Adjust blade control indicator for desired thickness of slice.
3. Place food in carriage.	3. Place food in the food carriage. Hold food firmly in place using food holder.
4. Start motor.	4. Turn on switch.
5. Slice food.	5. Using handle, move carriage back and forth across blade. *Note:* Develop a rhythmic motion; do not bang carriage.

Cautions and Guides in Operating a Food Slicer

The operation of a food slicer varies according to the make and model. Follow the manufacturer's instructions to obtain the best performance from the slicer and to assure the long life of the machine.

1. Always make certain switch is off and plug pulled out of socket before cleaning slicer.
2. When disconnecting slicer always pull the plug, never the cord.
3. When cleaning a slicer, do not let water come in contact with motor or electrical wiring.
4. Never use slicer when blade guard is off.
5. Always keep hands away from blade when machine is in operation.
6. Keep plug out of socket when machine is not in use. Be certain guard is on slicer before putting plug in socket.
7. Make certain hands are dry before operating slicer.
8. Never use metal instrument to scrape off food particles from slicer knife, as nicked blade tears food.
9. Be sure cord is dry and free from grease.
10. Do not use very hot water or steam in cleaning slicer, as too much heat may dry lubricants in important parts.
11. Keep blades sharpened according to manufacturer's instructions.

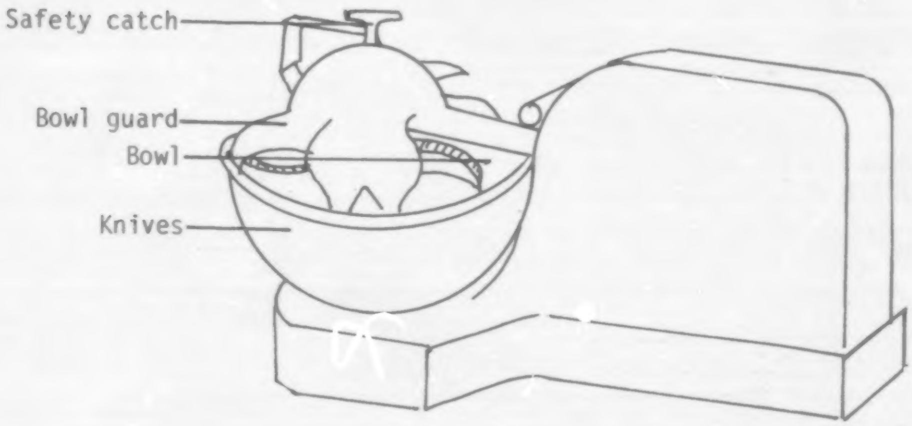
How to Clean a Food Slicer (See illustration p. 174.)

Caution: Instructions given below are general. Read and follow manufacturer's directions carefully.

Daily Cleaning:

1. Remove electrical cord from socket. Set blade control indicator at zero. Remove parts following manufacturer's instructions.
2. Wipe gauge plate with hot detergent solution. Rinse and dry. *Note:* Keep clear of blade edge. Wipe entire blade with heavy cloth, folded and dampened with hot detergent solution. Wrap cloth around long-handled hook, if provided. (Wipe from center toward edges of blade.) Rinse and dry blade with clean, heavy cloth.
3. Wash blade guard in hot detergent solution. Rinse and dry. *Note:* Replace blade guard immediately to prevent injury.
4. Wash other parts in hot detergent solution. Rinse and dry.
5. Wash all surfaces with hot detergent solution. Clean under blade with damp cloth. (Push cloth under blade, using long-handled hook, if provided.) Rinse and dry. Clean area under slicer.
6. Replace parts following manufacturer's instructions.
7. Cover with plastic or clean towel.

FOOD CUTTER OR CHOPPER



HOW TO OPERATE A FOOD CUTTER OR CHOPPER*

Caution: These instructions are general. Read and follow manufacturer's instructions carefully.

What To Do	*How To Do It*
1. Inspect cutter.	1. See that machine is assembled completely with all parts securely in place. Where clamp nuts are used, see that they are turned to hold bowl guard in place.
2. Start motor.	2. Push "Start" button or move switch to "Start."
3. Fill bowl.	3. Feed food into bowl gradually. Never fill bowl over 2/3 full. Never use fingers to push food under blades. Moving in the direction opposite to bowl rotation, scrape food down with large spoon from outer edge toward bottom of bowl to ensure uniform cutting.
4. Remove food.	4. Push "Stop" button or move switch to "Stop" position. Wait for knives to stop rotating. *Caution:* Knives will continue to rotate rapidly several seconds after machine is turned off. Throw safety catch. Remove food from exposed part of bowl. Raise guard and remove remaining food.
5. Prepare for next operation.	5. Hold knives to prevent rotation and wipe blades cautiously. Wipe out bowl. Rinse knife guard, dry, and replace. Tighten clamp nuts and levers for next operation. Leave safety catch in disengaged position.

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*U.S. Department of Agriculture. *Training Course Outline on the Use and Care of Equipment.* Washington, D.C.: U.S. Government Printing Office, 1960. pp. 59-62.

SAFETY PRECAUTIONS

1. Never put hands in bowl when the cutter is in use.
2. Wait until knives have stopped revolving before removing food or cleaning.
3. Do not overload bowl; fill 2/3 full.
4. Use large spoon rather than hand to guide food into cutters; move spoon in direction opposite to bowl rotation.
5. Do not use cutter for cutting meat with bones or gristle; to do so damages knives and gears.
6. After cleaning cutter, make sure knives are replaced in the proper position.

How to Clean a Food Cutter or Chopper

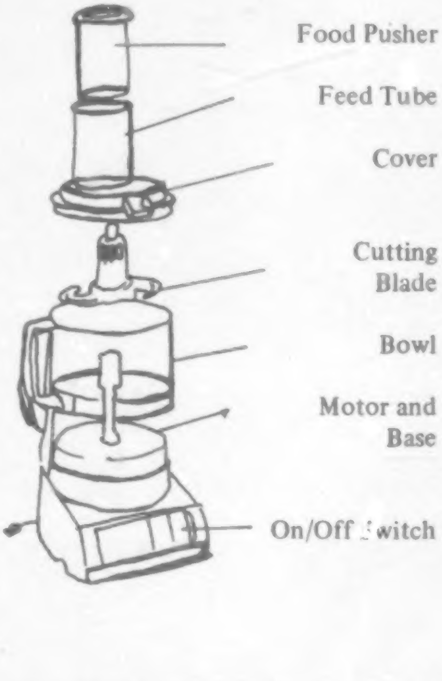
Caution: Instructions given below are general. Read and follow manufacturer's directions carefully.

Daily Cleaning:

1. Push switch to "Off" position. *Danger: Wait for knives to stop revolving.* Release safety catch holding bowl guard in place. Lift guard and remove.
2. Unscrew wing nut and remove blades from motor shaft. Clean blades carefully with hot detergent solution, using dish mop or sponge with handle. Rinse and dry.
3. Remove all particles, paying particular attention to area around guard. Wash with hot detergent solution. Rinse and dry.
4. If bowl is removable, remove and wash other parts. If bowl is fixed, wipe out food particles and clean with hot detergent solution. Rinse and dry.
5. Wash small parts in hot detergent solution. Rinse and dry.
6. Replace guard. Attach bowl to base. Reattach knife blades to shaft. Drop guard into position.
7. If bowl is not removable, clean under surface. Wash table or pedestal with hot detergent solution. Rinse and dry.

FOOD PROCESSOR

A food processor accomplishes the tasks of a food cutter or chopper in addition to other tasks usually done with knives, graters, mixers, etc. The operation and cleaning of the food processor is similar to that of the food cutter or chopper. Always follow the directions of the manufacturer.



These general rules for operation and safety apply to most food processors:

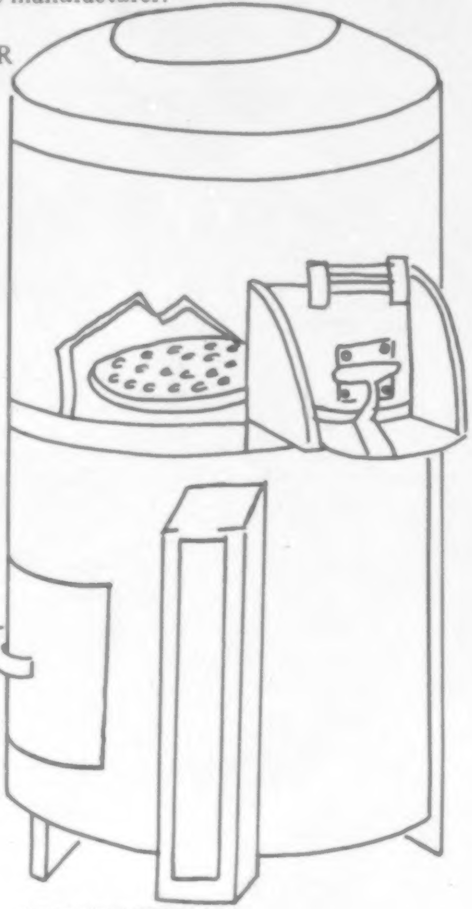
1. Read all instructions before attempting any operation.
2. Blades are sharp. To avoid injury, never place a cutting blade or disc on the base without first having the bowl placed properly. Keep hands and utensils away from moving blades. Always operate the processor with the cover in place.

3. Do not feed food by hand while slicing or shredding. Use the food pusher. Feed items at a steady rate but do not force them.
4. When finished, turn the processor off and make sure blades come to a full stop.
5. Unplug the processor before taking parts off or putting parts on, before cleaning, or while not in use.
6. Do not immerse the base in water. Wash all other parts in a hot detergent solution.
7. Do not use attachments unless recommended by the manufacturer.

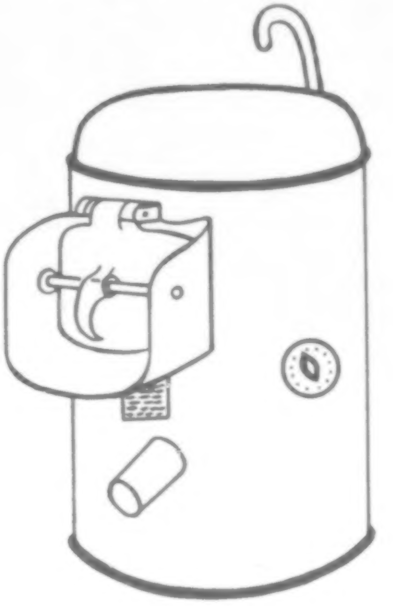
VEGETABLE PEELER

The mechanical vegetable peeler is used in quantity food preparation to peel such vegetables as white potatoes, sweet potatoes, carrots, and parsnips. It is also used to size potatoes.

Peelers are available in various sizes ranging from the large stationary size to the small portable size. A drain must be located near the vegetable peeler. The permanently installed vegetable peeler is attached to the floor and is usually located next to the vegetable sink. Drainage should be adequate to handle vegetable peelings.



POTATO PEELER



The portable potato peeler is inexpensive and satisfactory for a small school or business. It may be used anywhere that water and an electrical outlet are available.

To operate the peeler, sort and separate the vegetables according to use. Place the abrasive disk firmly in place and insert the strainer bucket into the peel trap. Check to be sure that the discharge door is closed. Use the control motor to start the switch. Then turn on the water. Fill the cylinders about 2/3 full with vegetables. Do not overload. Allow from 45 to 90 seconds for peeling time. Empty peel trap when it becomes 2/3 full by shutting off the water valve, opening the discharge door, and letting vegetables tumble into the sink or container of cold water. Close the door, reload the cylinder, and continue the operation until all vegetables are peeled.

Clean the cylinder immediately after use so that no peeling particles dry and stick to the surface. To clean the peeler, remove the cover and peeling disk. Wash the interior of the peeler with hot water and scrub the interior with a stiff brush. The interior may be rinsed with a soda solution to remove odors. Leave the discharge door open so the interior will dry. Clean the peel trap by removing the peel trap cover, the strainer basket, and the stopper; and then flush the interior with hot water. Leave the trap cover open to dry. Clean the parts (the cover, peeling disk, peel trap cover, strainer basket, and stopper) with a stiff brush and hot water. Let the parts air-dry. Wipe the exterior with a damp cloth. Periodically lubricate the motor according to manufacturer's instructions.

Guides for Using Vegetable Peeler

1. Do not let water come into contact with the motor or electrical wiring.
2. Do not put your hand inside peeler while peeler is in operation.
3. Never load the peeler without turning on the motor and water.
4. Load the machine to exact capacity. Underloading or overloading the machine reduces efficiency.
5. Do not peel excessively. This results in waste and bruising of vegetables.

QUESTIONS:

1. What two safety measures should be followed when plugging in the food slicer?
   a.
   b.

2. Where should the blade control indicator be set before parts of the food slicer are removed?

3. What kind of solution is used for cleaning the blade and other parts of the food slicer?

4. When operating a food chopper, what two things should be checked before the motor is started?
   a.
   b.

5. a. How should food be fed into the food chopper?

   b. How full should the bowl be filled?

   c. What safety precaution should be observed when filling the bowl?

6. What can be done to ensure uniform cutting when using the chopper?

7. Why would it be dangerous to remove food from chopper immediately after the "Stop" button is pushed?

8. What needs to be done to the chopper after the food is removed?

9. a. What should be used to guide food into the cutters of the chopper?

   b. In what direction should food be guided?

10. Why should meat with bones or gristle *not* be cut in the food chopper?

11. What are the steps in reassembling the food chopper after it has been cleaned?
    a.
    b.
    c.
    d.

12. When the food slicer is not in use, it should be ______________________

13. A food processor accomplishes the tasks of ______________________ in addition to tasks done with ______________________.

14. Use the ______________________ instead of your hands for feeding food into the food processor.

15. Vegetable peelers may be portable or ______________________.

16. A portable peeler requires ______________________ and an electrical outlet for operation.

17. Vegetable peelers may be used to peel white potatoes, ______________________, ______________________, and ______________________.

18. Before operating a vegetable peeler, check to see that the ______________________ disk is in place.

19. Fill the peeler about ______________________ full of vegetables for most efficient operation.

20. The time required for peeling vegetables in a mechanical vegetable peeler is ______________________.

21. It is important to load the vegetable peeler at exact capacity because ______________________

In Items 22-30, match each part of the food slicer to its function. Place the letter of the part in the blank to the left of its function. Use each letter only once.

Function

_____22. Starts and stops the food slicer

_____23. Holds food while it is being sliced

_____24. Regulates the thickness of the slice of food

_____25. Holds the scraps

_____26. Tells number of slices per pound

_____27. Holds the sliced food

_____28. Cuts the food

_____29. Provides safety when slicing food

_____30. Pushes food against blade

Part of Food Slicer

a. Blade control indicator
b. Blade guard
c. Blade or slicer knife
d. Food carriage
e. Food holder
f. Gauge plate
g. "On and Off" switch
h. Receiving tray
i. Scrap tray

ASSIGNMENT:

I. Refer to safety precautions to be observed when operating a food slicer. What procedures were violated in the following situation?

Jim was assigned to the job of cleaning the meat slicer. He checked to see that the switch was off and pulled the cord to unplug the slicer. He used very hot water to clean the frame of the slicer and was careful not to let the water come in contact with the motor. Some food particles were still on the slicer knife so he used a knife to remove them.

GROUP WORK:

I. Make posters to illustrate the safety precautions related to the use of food cutting equipment. Display the posters at your training station with your employer's permission.

UNIT VI-5

LARGE EQUIPMENT FOR FOOD PREPARATION AND SERVICE

SUBJECT: Mixing Equipment

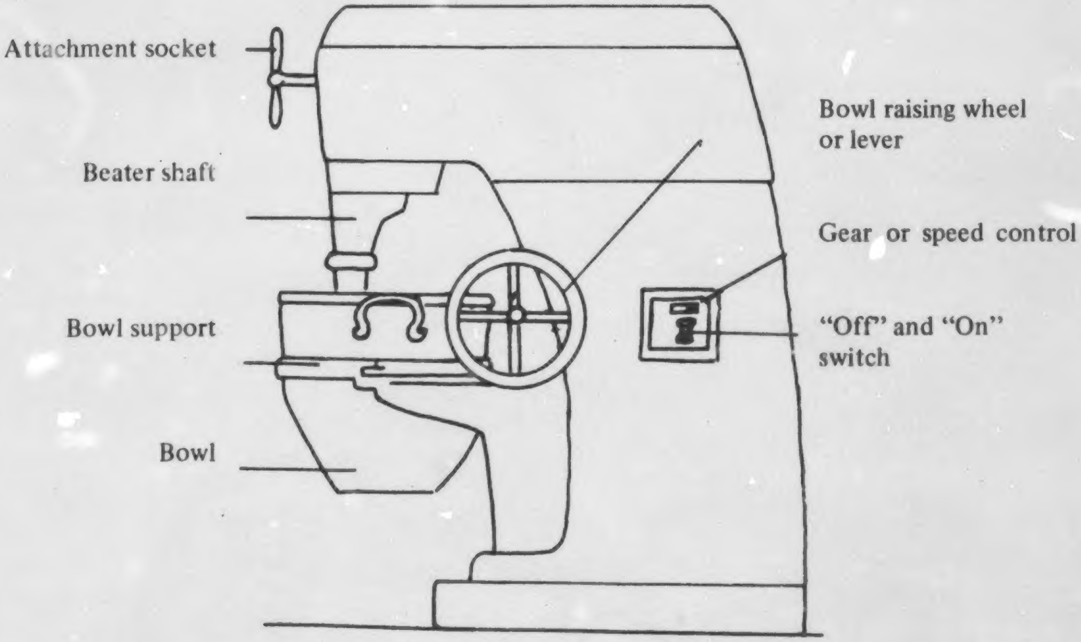
TASK: 16. Select and use correctly proper piece of equipment for tasks in food preparation, transportation, and service.

OBJECTIVES: When you finish this lesson, you should be able to

a. identify parts of a mixer and their functions
b. describe procedure for operation and care of a mixer
c. list safety precautions related to use of a mixer
d. identify parts of a blender
e. list techniques in caring for blender and safety precautions to observe.

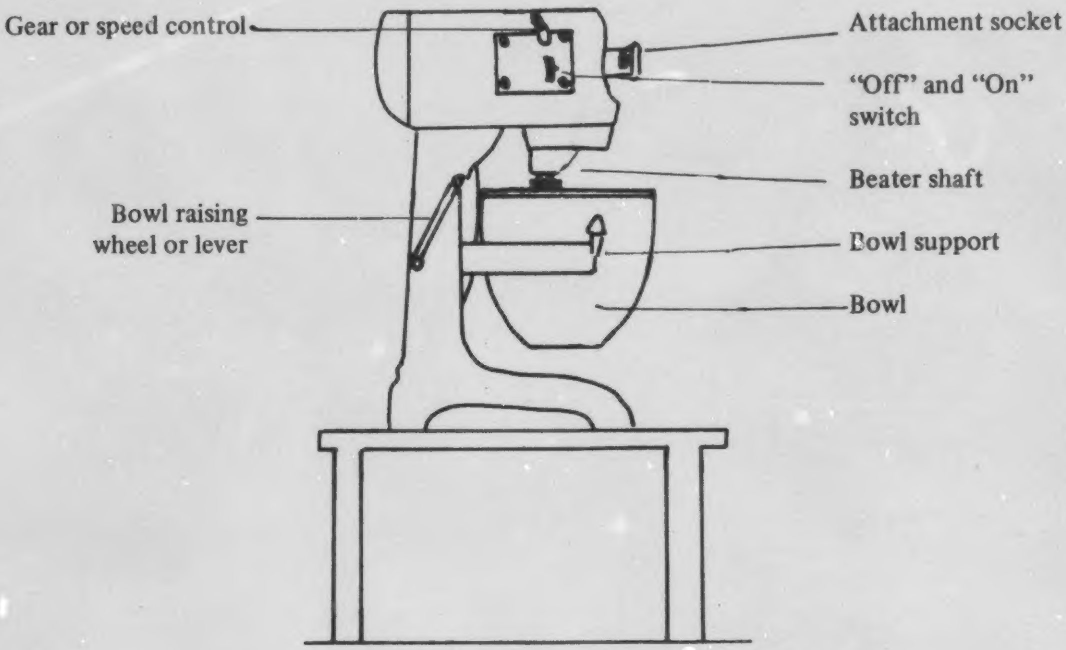
MIXER

The 30- to 60-quart, floor model mixer is used for mixing and blending ingredients or for incorporating air into the product.


Attachment socket
Beater shaft
Bowl support
Bowl
Bowl raising wheel or lever
Gear or speed control
"Off" and "On" switch

FLOOR TYPE

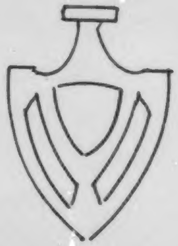
The 12- to 20-quart, bench model and the 5-quart, table model are used for mixing, creaming, or beating ingredients for cakes, batters, doughs, pastries, or meringues.


Gear or speed control
Attachment socket
"Off" and "On" switch
Beater shaft
Bowl raising wheel or lever
Bowl support
Bowl

BENCH TYPE

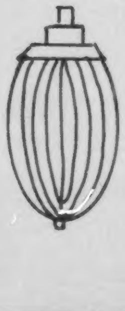
Uses for Beaters and Whips (Agitators)

Flat Beater—Use for general mixing; never use for heavy doughs.



1. Mixing main dish items such as ham-bean loaf, fish cakes, and hamburgers
2. Mashing vegetables such as potatoes and squash
3. Creaming mixtures such as batter and sugar, uncooked icings, honey butter, and sandwich spreads
4. Mixing batters such as muffins, cakes, and steamed puddings
5. Blending mixtures such as pastry and biscuits

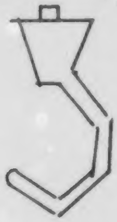
Wire Whip—Use for incorporating air into light mixtures; never use for heavy mixtures.



1. Blending dry mixes
2. Whipping dry milk
3. Reconstituting dry milk
4. Beating egg whites
5. Whipping cream
6. Mixing light icings

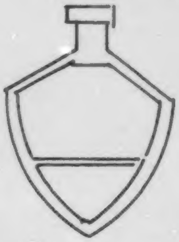
Dough Hook– Use for mixing heavy doughs requiring a folding and stretching action for best development.

1. Bread or rolls
2. Biscuits
3. Noodles



Pastry Knife– Use for combining shortening and flour by a cutting action.

1. Biscuits
2. Pie crust
3. Shortcake



Uses for Selected Attachments

Vegetable Hopper–The vegetable hopper is a special attachment for slicing, grating, or shredding vegetables and cheese. The purpose of the vegetable hopper is to force the food through the hopper. The rotor in the hopper turns to force the food through the plate. Do not add food while the rotor is in motion, as fingers might get caught in the hopper.

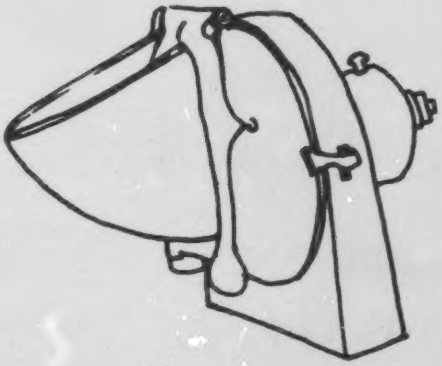
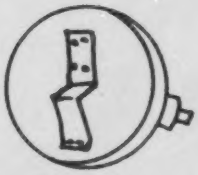


Plate attachments are available for use with the vegetable hopper.

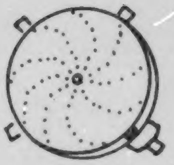
Slicer Plate



1. Slicing vegetables for salads and soups
2. Slicing firm fruits, such as apples, for salads
3. Slicing other vegetables, such as potatoes for scalloping and cabbage for steaming

Hint: Fasten a plastic bag to the machine to catch the food. The bag fills easily, stores easily in the refrigerator, reduces discoloration of vegetables, and keeps foods moist.

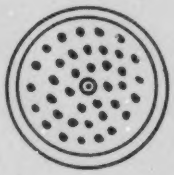
Grater Plate



1. Grating hard vegetables, such as carrots, parsnips, and turnips
2. Grating dry bread for crumbs
3. Grating hard cheese

Hint: Use a stiff brush to clean the plates. Toast the bread to a golden brown before grating.

Shredder Plate

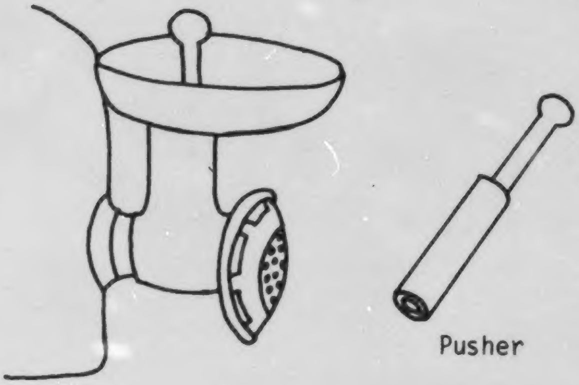


1. Shredding cabbage for coleslaw
2. Shredding vegetables for soups and salads

Hint: Shredding onions into a plastic bag reduces eye and nose irritation.

Meat and Food Chopper

1. Chopping or grinding raw or cooked meats
2. Chopping vegetables and dried fruits
3. Grinding dry bread crumbs
4. Grating hard cheese
5. Chopping hard-cooked eggs



Use the pusher—never hands—to push the food through the chopper.

Hint: Put a piece of bread through the chopper after grating cheese to make cleaning easier.

How to Operate a Mixer

1. Select appropriate size bowl and place on bowl support. Fill bowl with ingredients one-half to two-thirds capacity for best results.
2. Select proper agitator or attachment for desired use and insert onto beater shaft. Fit slot in agitator shaft over pin extending from hub and adjust until shaft is in the locked poisition.
3. Raise bowl to desired height by means of bowl-raising lever. The agitator should not touch the bowl.
4. Check to see if speed selector is on low speed and then start machine. Belt-driven machine: Adjust speed control and switch to "On" position. Gear-driven machine: Be sure it is in neutral. Press start button and set gear to speed required by recipe. Start at speed 1, then adjust to higher speeds if necessary. *Important: For gear-driven machine, always put clutch lever into neutral before changing speeds.*
5. Select speed desired and mix required length of time.
6. Stop machine. Belt-driven machine: Switch to "Off" position. Gear-driven machine: Shift to neutral gear and push "Stop" button.
7. Use bowl-raising wheel or lever to lower bowl.
8. Remove beater by turning it around until pin on hub slips out of slot in beater shaft. Remove bowl.

*How to Clean a Food Mixer**

Caution: Instructions given below are general. Read and follow the manufacturer's directions carefully.

1. Immediately after use, clean bowl support, beater shaft, shell, and base with hot detergent solution. Rinse and dry with clean paper towels. Scrape and brush out groove on beater shaft if necessary.
2. Wash bowl and beaters immediately after using (if egg mixtures or flour batters have been used, apply cold water before washing with hot water). Rinse and dry beaters thoroughly and hang up to prevent bending. Rinse and dry bowls thoroughly to prevent rusting.

Safety Practices For Use of the Mixer

1. Select the correct bowl for the type of mixture and then select the correct beater or whip according to bowl size and mixture.
2. Be sure to fasten the bowl and beater or whip securely before starting the motor.
3. Prevent spillage by starting the machine at low speed.
4. Do not put hands or spoons into the bowl while the mixer is in operation.
5. Always use a rubber scraper, flexible spatula, or long-handled spoon to scrape the sides of the bowl and to remove food from the beater or whip.
6. Scrape the sides of the bowl after the agitator has stopped.

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*U.S. Department of Agriculture. *Training Course Outline on Use and Care of Equipment.* Washington, D.C.: U.S. Government Printing Office, 1960. p. 77.

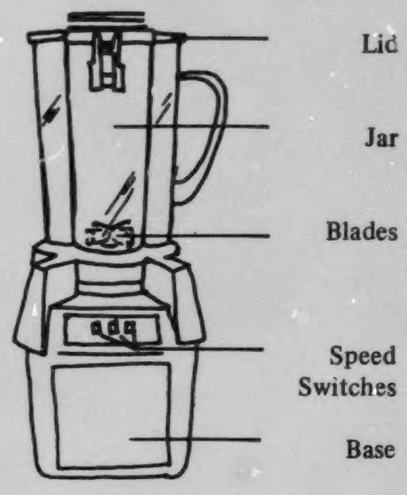
7. Use mixing bowls for mixing only–do not put them on the range or in the oven.
8. If the mixer is used on a continuous basis, always allow time for the motor to cool. Most mixers operate at a capacity load for one hour without overheating or damaging the motor.
9. Remove agitators and attachments only when the motor has stopped.
10. Use bowls large enough to hold the food to be mixed without danger of its slopping to the floor.
11. Use a splash cover if bowls are over half-full.
12. Do not use a container too heavy for you to handle safely by yourself unless wheeled equipment is available for moving the bowl and materials.
13. Should an overload occur, stop the machine and correct the condition before continuing with the job.
14. Be sure small utensils are not dropped into the bowl.
15. Do not wear loose clothing that may catch in the moving parts of the machine.

BLENDER

Blenders are used for high-speed blending, pulping, mixing, or reducing of meat, fish, vegetables, or fruits.

Operation

1. Place jar on base (assembly unit). Follow manufacturer's instructions in securing jar on base.
2. Place substances to be blended into jar.
3. Place lid on jar making sure lid is secured.
4. Connect cord.
5. Turn on switch and select desired speed for substances to be blended (see manufacturer's instructions). *Note:* Speed may be changed without stopping machine.
6. Turn switch off as soon as ingredients reach the desired firmness or thickness. Ingredients are reduced to a homogeneous mass almost immediately.



How to Clean a Blender

1. Remove jar from base. Wash and rinse using regular hand dishwashing procedure. Dry. For hard-to-remove materials put detergent water into jar and blend briefly first.
2. Wipe base with damp cloth after each use. Polish with dry cloth.
3. See manufacturer's instructions for further care, such as oiling.

Safety Practices for Use of the Blender

1. Do not drop spoons, spatulas, or scrapers into machine while motor is on.
2. Be sure lid is fastened tightly.
3. Do not put very coarse foods or large pieces of ice in jar.
4. Disconnect cord when machine is not in use.

QUESTIONS:

1. For what is the blender used?

2. List four safety precautions that should be observed when using the blender.
    a.

    b.

    c.

    d.

3. Why should food not be added while the rotor is in motion when using a vegetable hopper attachment?

4. What are the following attachments used for and what type of foods are used with each?
    a. Slicer plate

    b. Grater plate

    c. Shredder plate

    d. Meat and food chopper

5. What should be put through the chopper after grating cheese?

6. What type of solution should be used to clean the parts of a food mixer?

7. When using the food mixer, if egg mixtures or flour batters are used, how should the parts of the mixer be cleaned?

In Items 8-14, match the part of the mixer to its function. Place the letter of the part in the blank to the left of each function. Use each letter only once.

Function

______ 8. Point where attachment is put on mixer

______ 9. Part that raises or lowers the bowl

______10. Container to hold food

______11. Point at which beater is attached

______12. Part that starts and stops the mixer

______13. Part that adjusts the speed of the mixer

______14. Part that holds the bowl

Part of Mixer

a. Attachment socket
b. Beater shaft
c. Bowl
d. Bowl-raising wheel or lever
e. Bowl support
f. Gear or speed control
g. "Off and On" switch

In Items 15-25, match the agitator to the task associated with it. Place the letter of the agitator in the blank to the left of each task. The letters may be used more than once.

Task

______15. General mixing

______16. Beating air into light mixtures

______17. Mixing heavy doughs

______18. Combining shortening and flour by cutting action

______19. Mixing prune cake

______20. Making crust for apple pie

______21. Whipping 7-minute frosting

______22. Mixing cinnamon rolls

______23. Making meringue for lemon pie

______24. Mixing shortcake

______25. Mashing squash

Agitator

a. Dough hook
b. Flat beater
c. Pastry knife
d. Wire whip

ASSIGNMENT:

I. Examine instruction booklets for information on the use and care of mixing equipment. What safety procedures are stressed in the instructions?

GROUP WORK:

I. With other food service and dietary employees, visit a bakery or other food service establishment and watch a demonstration on the use and care of mixing equipment.

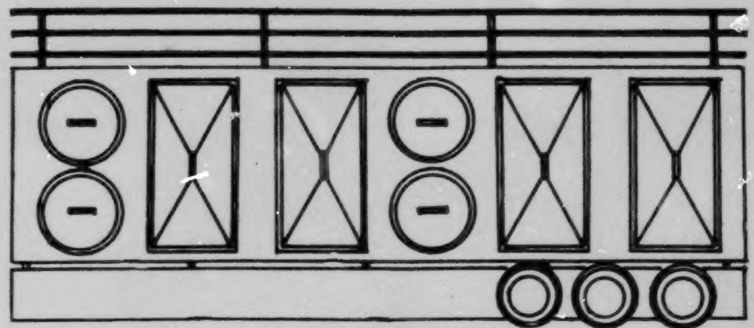
UNIT VI-6

LARGE EQUIPMENT FOR FOOD PREPARATION AND SERVICE

SUBJECT:	Holding and Serving Equipment
TASK:	16. Select and use correctly proper pieces of equipment for tasks in food preparation, transportation, and service.
OBJECTIVES:	When you finish this lesson, you should be able to a. identify holding and serving equipment and their functions b. describe porcedures for the use and care of holding and serving equipment.
REFERENCE:	Weiss, Edith, and Weiss, Hal. *Catering Handbook.* New York, New York: Ahrens Publishing Company, Inc., 1971. pp. 20-21.

STEAM TABLE

Steam tables keep foods hot and ready for immediate service. Arrange the food on the steam table in the order in which it will be placed on the plate (see illustration for proper arrangement). Proper arrangement aids in serving food rapidly.



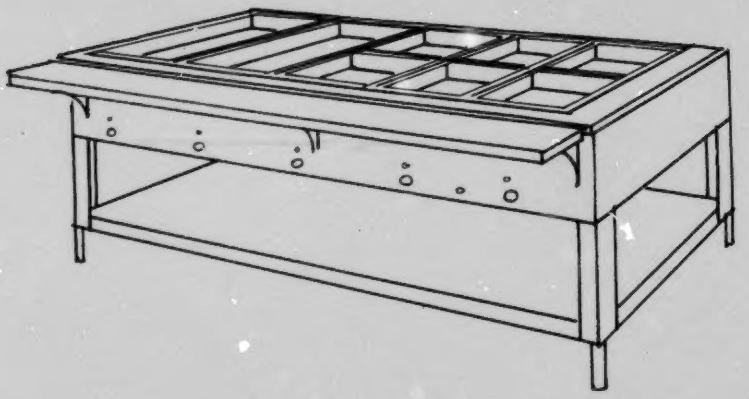
If the steam table is to be operated at maximum efficiency, certain principles should be remembered:

1. Water in the steam table tank should be kept at a temperature which will hold the food at a minimum temperature of 140° F. (60° C.) throughout the serving period. Under these conditions, the temperature of the steam table acts as a control over germs. If the temperature drops too low, however, the steam table affords ideal conditions for germs to grow: moisture, warmth, and food. Most tables have thermostatic controls to check the temperatures.
2. Water should be held at the proper temperature and not allowed to increase. If water boils or gives off excess amounts of steam, the food becomes overcooked and dry.
3. Containers should be covered when placed on the steam table, and they should remain covered until time to serve.
4. The water pan should be filled with hot tap water to save time and fuel.

Effective cleaning removes soil from equipment. It is important not only to be aware of proper cleaning procedures but also to know the "when" of cleaning. In applying the principles of sanitation, the time factor cannot be overemphasized. Cleaning immediately after use reduces the length of time during which bacterial growth may occur, and it also requires less time and energy. Keep in mind, therefore, that if the steam table is to be cared for properly, food particles should be removed promptly after service is completed.

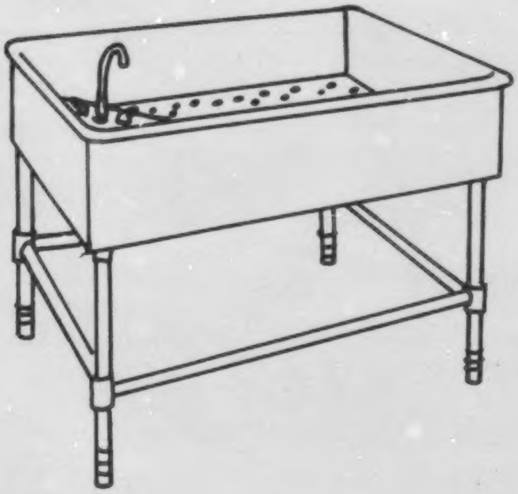
To clean steam table containers, scrape and pre-rinse to remove excess soil. Be sure to clean covers as well as containers. Wash, using hot water (120° F. or 48.8° C.), detergent, a stiff brush, and "elbow grease." Rinse in hot water (140° F. or 60° C.). If necessary, sanitize the steam table containers by using hot water (170° to 180° F. or 76.6° to 82.2° C.). Air-dry steam table containers. This is the most effective method becuase of the bacteria which are often on the drying towels. Drain and clean the water pan of the steam table often to prevent scale build-up. A mild acid, such as vinegar, can be used periodically to remove scale. This treatment should be done when the table can be aired thoroughly after rinsing so as to allow time for the smell of vinegar to disappear.

WATERLESS FOOD WARMER



The waterless food warmer allows different foods to be kept at proper storage temperatures, preserves the range-fresh flavor, and eliminates food waste. The storage temperatures required for different foods, (meats, 145° to 150° F. or 62.7° to 65.6° C.; vegetables, 140° F. or 60° C.; thin soups, 180° F. or 82.2° C., etc.) are maintained on the waterless food warmer by control valves and thermostats. The fully insulated compartments are separately heated, and there is no water pan. Some models of the waterless food warmer have removable spillage pans which speed cleanup time and improve sanitation.

BAIN-MARIE



The primary purpose of the bain-marie is to keep food hot at the service counter. It is not to be used for cooking or continuing the cooking process. Foods which may be kept hot in a bain-marie are sauces, gravies, soups, and vegetables. Food containers should be kept covered and they should be deep enough to keep the water level from rising and spilling into the food.

During operation, a pipe is inserted into the water drain, which is located in the center of the bain-marie floor. The bain-marie is filled with water to keep the containers hot. The water must not cause the containers to float, or to spill into the food containers.

Turn on the water to fill the bain-marie to the desired depth. While the water is running, turn on the steam switch to the bain-marie as well as the steam switch to the hot wells. Be sure to allow sufficient time for the water to reach the correct temperature.

Take extra precautions to prevent burns while placing or removing the food containers in the bain-marie. Also take precautions when removing the pipe from the water drain.

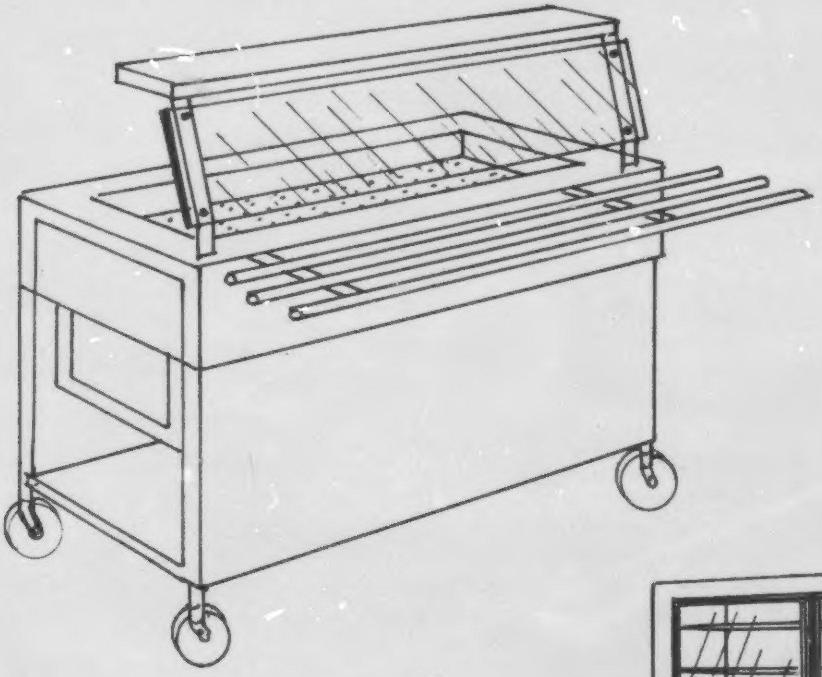
Turn the steam switch to the "Off" posiiton when the bain-marie is not in use. Drain the water from the bain-marie at the end of each serving period by lifting the pipe from the water drain.

Remove and thoroughly clean the metal bottom of the basin after use. If corrosion gathers on the bain-marie, remove the corrosion with suitable chemicals.

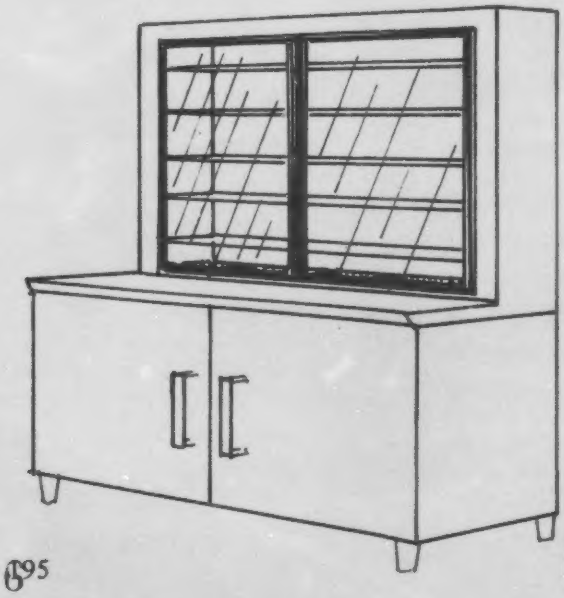
COLD FOOD SERVER

The cold food server is usually made of stainless steel and is sometimes called an ice-bain-marie. It may be either stationary or portable. The purpose of this server is to keep cold food chilled. Before serving time the perforated inner liner is filled with crushed ice. The cold food is placed on this bed. As the ice melts, the water drips into the lower container.

The cleaning of the cold food server may be the responsibility of the entry-level food service employee. The cold food server must be cleaned completely each day. Water is removed by means of a drain in the bottom and is carried away through a drainpipe. The ice is removed and the entire cold food server is washed with a detergent solution and a clean cloth. The perforated metal liner is easily removed for complete cleaning. Each food service establishment has its own recommended sanitizing product. The entire food server should then be completely rinsed and wiped dry.



COLD FOOD SERVER



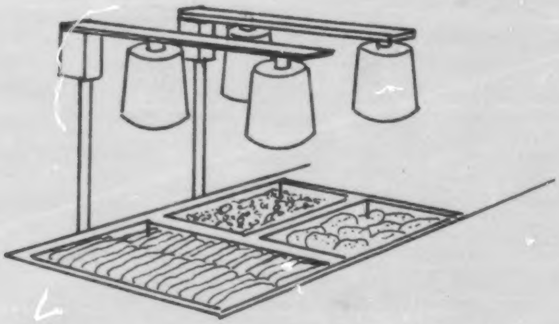
SALAD CASE

SALAD CASE

The salad case is a refrigerated cabinet with shelves for salad storage. The salads can be made in advance and stored or displayed in the case. It is convenient in institutions where many people are served during peak periods.

Clean the salad case with a cloth and a detergent-water solution, rinse, and dry with a soft cloth. Polish the exterior stainless steel if needed.

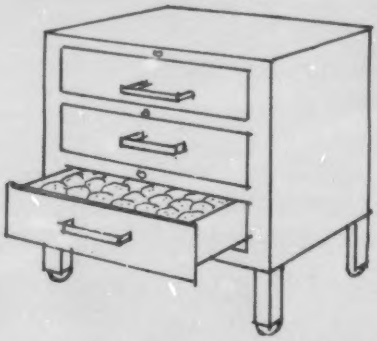
INFRARED LAMPS



Infrared lamps are used to keep foods warm. They are kept near food displayed in a cafeteria or a buffet counter. The lamps are also used to keep food warm in the kitchen. The lamps are available in various metals. There are pull-down types and stationary stem-mounted types.

Let lamps cool before cleaning and unplug if possible. Wash with a cloth and a mild detergent and water solution. Rinse and wipe dry with a soft cloth. Never use excessive pressure in cleaning or the lamps may explode.

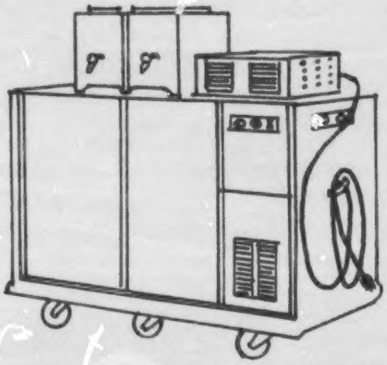
ROLL WARMER



The roll warmer keeps a large quantity of breads or sweet rolls warm. The warmer has separate drawer compartments with individual controls for each drawer. The roll warmer keeps bread from drying out and is an effective method for holding hot breads prepared in advance.

After the unit cools, remove crumbs from compartment drawers. Wash the drawers with a soft cloth and a mild detergent and water solution. Rinse and wipe dry with a soft cloth.

HOT AND COLD CARTS



These carts usually have a 20-tray capacity and usually are used for tray delivery. They are enclosed carts with one refrigerated side and one heated side. Trays with cold foods are placed in the refrigerated side; hot foods and cups for hot beverages are set in a drawer on a small tray in the hot side. Insulated jugs of coffee and tea may be set on top of the cart. Some models have beverage dispensers.

Another hot-cold cart uses divided trays, one section for cold foods and the other for hot. Rubber gaskets in the cart separate the two sections as the tray slides in. Trays are completed in the kitchen; no matching is needed at the service area, so possibility of error is reduced.

Clean food carts daily. Brush off all loose soil. Be sure to clean out the corners of the carts. Wipe the interior and the exterior of the cart with a damp cloth. Rinse and wipe dry with a clean cloth.

Water spots or a dull lime haze may appear on stainless steel carts. To remove the water spots or lime haze, apply a cleaning solution recommended by the manufacturer. Let the solution soak until the spots or haze disappear. Rinse with clean water and dry with a clean cloth.

THERMAL DISK TRAYS OR PLATE HOLDERS*

Metal disks are heated in an oven and slid into a depression in a tray or plate holder. Mobile and self-leveling heaters for disks are available. The plate is set on the warming disk, then covered for delivery. Insulated individual containers are used for hot soups or beverages or iced desserts. The trays are complete when they leave the kitchen.

THERMAL TRAY SYSTEM*

Hot or cold foods are portioned into special containers which are then set into compartmentalized trays. Filled trays are stacked one on top of another to form a vertical hot column and a vertical cold column, using the temperatures of the foods themselves to maintain temperatures during delivery. A cover is placed over the top tray.

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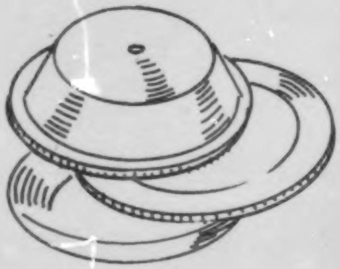
*U.S. Department of Health, Education, and Welfare. *A Guide to Nutrition and Food Service for Nursing Homes and Homes for the Aged.* Washington, D.C.: U.S. Government Printing Office, 1971. p. 101.

COMPOSITION PLATE HOLDER AND DOME COVER*



Composition plate holders and dome covers are used with tray delivery equipment. The plate holder and dome cover lock together to retain the temperature of food on heated plates. Insulated covered containers are needed for other hot foods. Chilled dishes are needed for cold foods.

QUESTIONS:

1. List three functions of the waterless food warmer.
   a.
   b.
   c.

2. The cold food server keeps the food chilled by the use of ______________________________

3. The cold food server is cleaned daily with a ______________________________ solution.

In Items 4-7, place an X in the blank by the letter of the phrase which correctly completes the statements.

4. Food should be arranged on the steam table according to the
   ______ a. color combinations.
   ______ b. order in which it will be placed on plate.
   ______ c. order in which it will be eaten.
   ______ d. sizes of containers.

5. Water in the steam table should be kept at
   ______ a. 140° F. (60° C.).
   ______ b. boiling point.
   ______ c. a temperature to hold food at 140° F. (60° C.).
   ______ d. below 140° F. (60° C.).

6. In order to prevent bacterial growth, the steam table should be cleaned
   ______ a. immediately after the service is completed.
   ______ b. after it has cooled.
   ______ c. the same day it is used.
   ______ d. before food is placed on the table.

7. A steam table may be sanitized by using water at
   ______ a. 120° F. (48.8° C.).
   ______ b. 140° F. (60° C.).
   ______ c. 170° to 180° F. (76.6° to 82.2° C.).
   ______ d. 212° F. (100° C.).

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*U.S. Department of Health, Education, and Welfare. *A Guide to Nutrition for Food Service for Nursing Homes and Homes for the Aged.* Washington, D.C.: U.S. Government Printing Office, 1971. p. 101.

In Items 8-12, place an X in the blank to indicate whether the statement is true or false.

8. The bain-marie is used to cook foods.
   ______ a. True
   ______ b. False

9. The water level in the bain-marie should be lower than the food containers so that they do not float.
   ______ a. True
   ______ b. False

10. Steam switches on the bain-marie should be turned to "On" while the water is running.
   ______ a. True
   ______ b. False

11. Water should be left in the bain-marie from one serving period to the next.
   ______ a. True
   ______ b. False

12. Extra care must be taken to prevent burns when placing or removing food containers in the bain-marie.
   ______ a. True
   ______ b. False

In Items 13-21, match the holding and serving equipment to its function. Place the letter of the equipment in the blank to the left of its function. Use each letter only once.

Function

______13. Consists of a refrigerated cabinet with angle-slanted shelves for storage and display

______14. Contains filled trays that are stacked in vertical hot and cold columns

______15. Transports caterer's equipment, serviceware and accessories

______16. Keeps large quantities of breads and sweet rolls warm

______17. Contains insulated individual containers used for hot soups, beverages, or iced drinks

______18. Contains refrigerated and heated compartments for trays used in tray delivery

______19. Locks together to retain temperature of food on heated plate

______20. Keeps food warm that is displayed in a cafeteria or on a buffet counter

______21. Transports food to catering locations

Holding and Serving Equipment

a. Carrying cases
b. Composition plate holder and dome cover
c. Handlift cabinets
d. Hot and cold carts
e. Infrared lamps
f. Roll warmer
g. Salad case
h. Thermal disk trays or plate covers
i. Thermal tray system

ASSIGNMENT:

I. Prepare a chart on the pieces of holding and serving equipment used at your training station showing their uses and the care required by each piece.

GROUP WORK:

I. With other food service and dietary employees, discuss the charts on the pieces of holding and serving equipment. Check to see if improvement can be made in your duties when using and caring for the holding and serving equipment.

UNIT VII-1

LARGE EQUIPMENT FOR COOKING FOOD

SUBJECT: Toasters

TASK: 17. Select and use correctly proper piece of equipment for cooking food.

OBJECTIVES: When you finish this lesson, you should be able to
a. describe procedures for using and caring for toasters
b. summarize functions of toasters.

CONVEYOR TOASTER

Conveyor toasters are used for toasting large amounts (approximately one loaf) of bread at a time. Following are instructions for the safe operation and care of conveyor toasters.

Operation

1. Set starter switch at "Off."
2. Plug in electric plug.
3. Turn starter switch on and off to be sure conveyor runs smoothly.
4. Set thermostat dial at a medium setting.
5. Preheat for 20 minutes.
6. Test run a few slices of bread.
7. Adjust thermostat dial as needed.
8. Place bread in toast baskets.

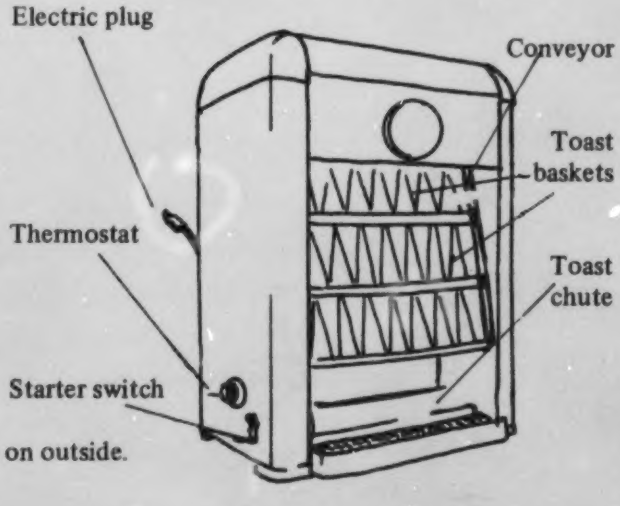
How to Clean a Conveyor Toaster

Daily Cleaning:

1. Wipe outside.
2. Remove crumbs.
3. Remove toast chute and clean base.

Monthly Cleaning:

1. Use nonabrasive cleaning compound on outside.
2. Boil baskets.



Safety Practices for Use of the Toaster

1. Keep fingers clear of elements while loading toaster.
2. Remove plug from electrical outlet when toaster is not in use.

INDIVIDUAL TOASTER

Parts of the Toaster

The small electric toaster is a commonly used eletrical appliance in food service and dietary establishments. The essential parts of the toaster include:

1. a heating element, which is insulated within a frame.
2. an appliance cord, which carries the current from the electric outlet to the appliance.

Toasters vary in convenience features, such as removable crumb trays, toast ejectors, and regulators for degree of brownness.

Cleaning Procedures

Keep the toaster clean by wiping off the outside with a soft, damp cloth. If the toaster is greasy, use a nonabrasive cleaning compound. The cleaning compound and water should not touch the electrical element. Clean the crumb tray daily, observing the safety precautions listed below:

1. Always disconnect the cord when cleaning the toaster.
2. If a piece of bread becomes lodged inside, always disconnect the cord before attempting to remove the bread.
3. Be sure your hands are dry when operating the toaster.

For best results in toasting, use bread that has been stored for at least 24 hours. However, do not slice bread too soon before toasting, or it will become dry. The bread used should be uniform in texture and grain and of good quality. Bread that is too coarse usually makes dry toast because the heat penetrates too quickly. Bread that was carelessly mixed often has streaks of dough and these will remain white while the rest of the slice is browned.

QUESTIONS:

1. What daily cleaning should be given to the conveyor toaster?

2. What kind of cleaning compound should be used on the outside of the conveyor toaster for monthly cleaning?

3. Give two safety precautions to observe when using a conveyor toaster.
   a.

   b.

In Items 4-11, place an X in the blank by the phrase which correctly completes each statement.

4. An essential part of the individual toaster is
   ______ a. the heating element, which is insulated in a frame.
   ______ b. a series of transistors.
   ______ c. an extension cord.
   ______ d. the thermostat dial.

5. Convenience features of individual toasters include
   ______ a. regulators for degree of brownness.
   ______ b. removable crumb trays.
   ______ c. toast ejectors.
   ______ d. all of these.

6. Individual toasters should be kept clean by wiping off the outside with
   ______ a. a soft, damp cloth.
   ______ b. a soft, dry cloth.
   ______ c. a soft, sudsy cloth.
   ______ d. a soft, dripping wet cloth.

7. If the individual toaster is greasy, clean it with
   ______ a. a steel wool pad.
   ______ b. a nonabrasive cleaner.
   ______ c. a scouring powder.
   ______ d. a strong ammonia cleaner.

8. When cleaning the individual toaster, the cleaning compound or water should not touch the
   ______ a. regulator.
   ______ b. crumb tray.
   ______ c. electrical element.
   ______ d. extension cord.

9. When cleaning or working with the individual toaster, always
   ______ a. be sure it is turned off.
   ______ b. check the regulator.
   ______ c. remove the baskets.
   ______ d. disconnect it.

10. When operating the individual toaster, be sure hands are
   ______ a. dry.
   ______ b. wet.
   ______ c. oiled.
   ______ d. protected.

11. For best results, before toasting, bread should be stored at least
   ______ a. 2 hours.
   ______ b. 8 hours.
   ______ c. 16 hours.
   ______ d. 24 hours.

ASSIGNMENT:

I. Name the type of toaster used at your training station. List the procedure you follow in operating and caring for the toaster.

GROUP WORK:

I. With other health and food service employees compare the procedure for operating and caring for the toaster at your training station.

UNIT VII-2

LARGE EQUIPMENT FOR COOKING FOOD

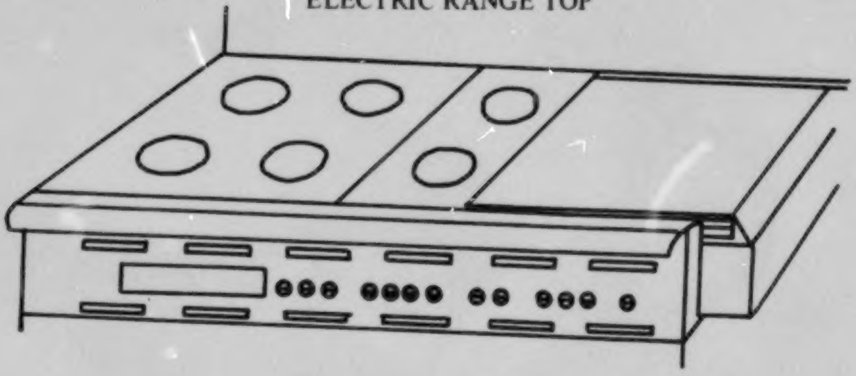
SUBJECT: Surface Cooking Equipment

TASK: 17. Select and use correctly proper piece of equipment for cooking food.

OBJECTIVES: When you finish this lesson, you should be able to

a. describe procedures for use and care of ranges
b. summarize functions of the exhaust hood
c. list techniques of caring for exhaust hood
d. describe procedures for use and care of the grill
e. explain procedures for use and care of broilers
f. describe procedures for use and care of the deep-fat fryer.

ELECTRIC RANGE TOP

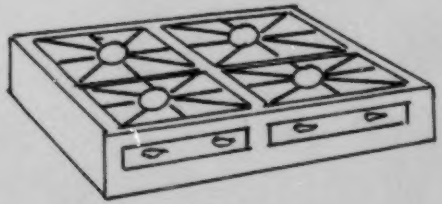


The electric range may have either a solid plate top or a coil top cooking surface. Because the solid top model requires a preheat period, the heat control should be turned on at the beginning of the food preparation. Instant heat is produced on many of the fast-cycling electric coil units, and a preheat period is unnecessary.

Electric range top units may be set at "High," "Medium," or "Low." Use "High" only until the food starts to cook, then turn to "Medium" or "Low." "Low" produces one-fourth and "Medium" produces one-half as much heat as "High." If the electric range has a *thermostatic control,* turn the switch to the exact setting for the temperature desired. The thermostatic control is an automatic device for regulating the temperature.

Adjust only those heat controls for the portion of the range top to be used. Arrange pots on a solid top model so that they cover as much of the heated surface as possible. Pots on round units should cover the entire unit to make the best use of heat and to ensure that the food cooks evenly. This procedure saves electricity and helps keep the kitchen cooler. Be sure to turn the units off when the cooked food is removed from the range top. Cover pots and pans when steaming food so retaining moisture in the pan will help prevent burning and reduce cooking time.

GAS RANGE TOP



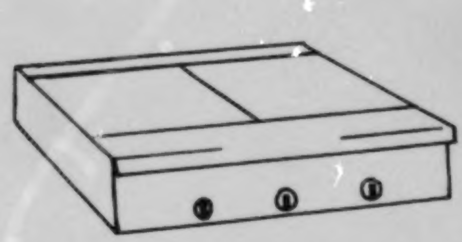
The gas range may have a solid surface, open burners, or ring top cooking surfaces. Some gas ranges produce instant heat, but the solid top requires a preheating period.

On gas ranges equipped with a pilot light, lift the top cover to see if the pilot light is on. The gas range should contain an automatic cutoff in case the pilot light goes out. If it is necessary to relight the pilot light, depress and hold down the spring-button and apply a match to the pilot opening. After waiting thirty seconds, release the button. The pilot light should stay lit. If the pilot light goes out, wait five minutes and repeat the process. Turn the burner valve on gently. On ranges without pilots, light the match before turning on the burner valve.

Use a low flame for simmering and a high flame for boiling. After the boiling point is reached, turn the flame down to save fuel. Turn off all gas controls when food is removed from the range top.

If open burners are used, pots should cover the entire unit to make the best use of fuel and to cook the food evenly. When solid burners are used, pots should be arranged to cover as much of the heated surface as possible.

HOT TOP RANGE

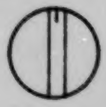


The hot top is used for any cooking done on top of the stove. However, it is not practical for heating large containers because it takes too long. Nor is it practical for heating milk because the milk usually scorches. Any spilled or burned food should be scraped off immediately.

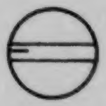
The hot top range heats evenly by a double bar burner. A simmer-set valve is located on the hot top. The surface cooking plate is removable for cleaning.

Each burner has a control knob, which is located at the front. There is also a pilot light for each burner.

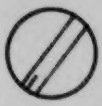
The burner is off when the pointer of the knob is in the 12 o'clock position.



For a high flame, the knob is turned counterclockwise until it reaches the 9 o'clock position.



For a low flame, the pointer is turned down to about the 7 o'clock position.



Procedures for Cleaning a Range

Clean the range daily for efficient and sanitary operation. Turn the range off and let it cool before cleaning. Clean solid tops and round units with a wire brush or scraper. Wipe tops and units with a solution of hot water and detergent; rinse and dry. You may use cleaning powder to remove rust or spilled food. Remove and scrub drip trays with hot detergent solution; rinse and dry. Clean the sides and base of the range with the same solution. Wipe up immediately any food that has boiled over or spilled. Keep grease cleaned out of cracks or drip trays because spilled grease may become a fire hazard.

Weekly care includes soaking burners in hot detergent solution. Clean the clogged burners on the gas range with a stiff wire brush or an ice pick; then rinse and dry the burners.

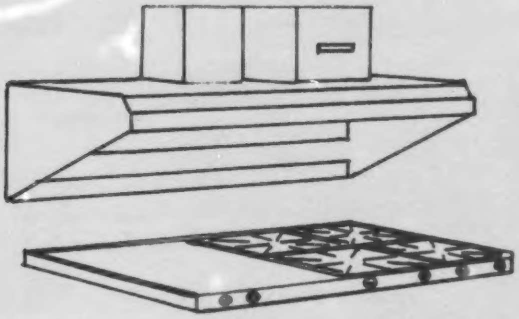
Unpainted parts of the range can be made rustproof by wiping them with a cloth dampened with cooking oil or other rust preventative. This precaution is unnecessary for stainless steel surfaces.

It is important to let the range cool before cleaning. Do not use water to cool the range. Do not allow water to come in direct contact with wiring or electric switches.

Safety When Using the Range

1. Be sure there is good lighting in the working area for safe operation of the range.
2. Be sure ventilation is adequate.
3. Let the range cool before cleaning.
4. Never allow grease to accumulate in cracks of range or on drip trays because of the fire hazard; accumulated grease also causes unpleasant odors and attracts roaches and mice.
5. Avoid unnecessary spillage on the range top; if spillage occurs, clean the range top immediately. (A yellow flame is usually an indication of dirty burners.)
6. To prevent burns from hot pots and pans, use dry potholders and make certain that space is available for placing the removed hot pots.
7. To prevent burns when removing lids from pots, use dry potholders and lift lids away from you so that steam does not scald your hands, arms, or face.
8. To prevent burns, do not allow a pot handle to protrude beyond the edge of the range.

EXHAUST HOOD

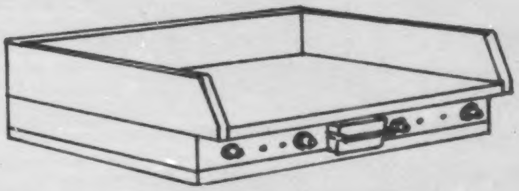


An exhaust hood should be placed above all cooking equipment for ventilation, fire control, and the removal of smoke, cooking vapors, and other odors from cooking areas.

Clean the exhaust hood periodically by using a cloth and warm water detergent solution to remove the grease film. Rinse the hood with clean water and dry it with a clean cloth.

Wash the grease filters in the exhaust hood weekly. Remove the filters and wash by hand or in the dish machine. Remove the filter and wipe the surfaces with a damp cloth. Treat aluminum surfaces with general equipment cleaner. To treat surfaces which are not aluminum, apply an alkaline product solution with a brush or cloth to the surface. Filters should soak in the solution 15 to 30 minutes. Rinse filters with warm water and air-dry.

GRILL



A grill may be a separate piece of equipment or it may be part of a range top. The grill may be either gas or electric.

The surface of the grill must be *seasoned* before use. Seasoning is the build-up of shortening on the grill until a slick surface is formed. A new grill must be seasoned when it arrives in the kitchen, and it must be reseasoned after each thorough cleaning.

To season a grill, bring the heat to 300° F. (148.8° C.). Use a clean, dry cloth to spread a light film of unsalted shortening over the grill. Let the shortening stand for two minutes; then wipe the grill clean. Repeat this process until a slick surface is formed. Wipe off excess shortening.

If dull spots occur after several items have been grilled, wipe the surface with a cloth saturated with unsalted shortening to bring back the shine.

To operate the grill, turn the automatic controls on the grill to the desired temperature. The automatic controls cause the temperature to vary on different parts of the grill. Several foods can be cooked at different temperatures at the same time, or part of the grill can be turned down (never off) during a slack period.

Leveling adjustments hold the grill plate surface level. When the grill plate is level, there is an even distribution of shortening on the plate surface.

Most grills have a removable tray to collect grease and food particles. The tray helps speed up the cleaning process and contributes to the safety and sanitation of food preparation on the grill.

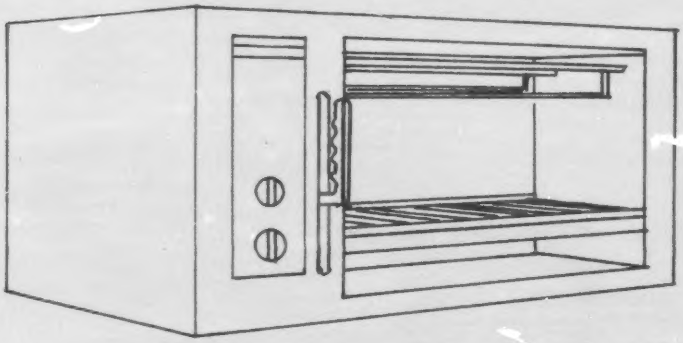
Clean the grill after each use. Allow the grill to cool, and scrape the surface with a spatula or a stiff metal scraper. Clean with a pumice stone, wash with a damp cloth, and dry with paper towels or a cloth. Season the grill after cleaning with unsalted shortening or salad oil.

Remove the grease trays and wash them in a hot-water detergent solution. To keep the controls, chrome surfaces, switches, and thermostat free from grease, wipe these items with a damp cloth and a mild detergent solution.

Hints:

1. Do not throw cold water on a hot grill because of the danger of warping.
2. Never use steel wool on the grill, as it will mar the surface of the grill. Also, some small pieces of the wool may remain on the grill and be picked up later by the food.
3. Avoid using cleaning products that are dangerous to food.
4. Avoid using cleaning products that might scratch the surface of the grill.
5. Do not place pans and p[illegible] the grill; heat them on the range.

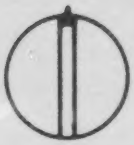
BROILER



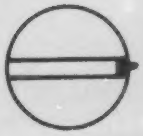
The types of broilers include gas, electric, and charcoal models. Broilers may be backshelf models called *salamanders*, or they may be separate pieces of equipment.

The broiler is used to cook foods by radiant heat. Meats, poultry, seafood, vegetables, and fruits can be prepared by broiling. The food is usually placed on a grill below the heat source of the broiler. When the charcoal model is used, the food is cooked above the heat source. A grid lever control raises or lowers the food in relation to the heat source of the broiler.

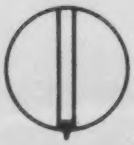
The gas model has the standard pilot light and safety cutoff controls. The electric broiler has two coils inside the top of the broiler oven, one in the front and one in the back. The temperature is adjusted by using knobs, which are pulled out and then locked into position. The positions for "High," "Medium," and "Low" are shown on the following page.



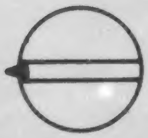
OFF



HIGH



MEDIUM



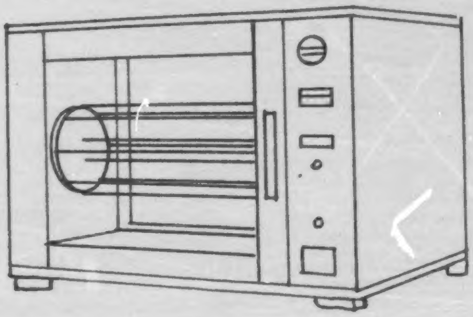
LOW

Preheat the broiler for 15 minutes before use. (When using the gas model, check the pilot light and gas "On" control.) Pull the grid out and place the food to be broiled on the grid. Use the grill lever control to adjust the grid to the correct distance from the heat source. During cooking time, check the broiler trays to prevent grease fires and flare-ups from fatty items.

To prevent excessive sticking of food, use a wire brush to remove burned food. At the end of the cooking time, turn the heat source off. The broiler can be kept on standby by turning the switch to the low setting.

Let the broiler cool before cleaning. Remove the grid, and use a wire brush on both sides of the grid. Apply a thin layer of oil. Scrape grease and burned-on food particles from the unit. Remove and wash grease traps if they are included on the model. Use a hot-water detergent solution in cleaning the broiler. Remove the ashes from the tray of charcoal broiler models.

ROTISSERIE BROILER



Restaurants specializing in barbecued food use the rotisserie broiler. It is often placed in a show window or a visible location for advertising.

In rotisserie broilers, reflected infrared heat cooks the food. The broiler is especially good for cooking meat.

The food is placed on shelves or spits. Make sure the food is evenly balanced. Turn on the heat and then the motor to rotate the shelves or spits. If cooking meat, use an internal meat thermometer to determine when the meat is cooked.

At the end of each day, remove the grid and drain pan, and wash and dry them. If foil is used, replace regularly. Wash the outside, rinse, and wipe with a soft cloth. Check burners for food deposits.

DEEP FAT FRYING

Cooking a food in deep fat is similar to boiling it. The food is completely surrounded by hot, bubbling fat. Since food is surrounded by fat, turning is not necessary. Foods which have been fried in deep fat may be called "French fried" on the menu.

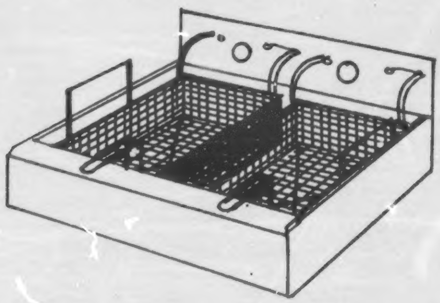
Bread the food, dip it in batter, or wrap it in dough so that the food is covered. Cook to a golden-brown. Over-browning causes food to become dry and tasteless. Some foods, such as fish, float to the top of the grease when done.

Deep-fat frying gives a food service operation a chance to use leftover food that would otherwise be wasted. For example, leftover salmon loaf can be made into croquettes, deep-fried, and served the following day. Other leftover meats, poultry, or fish can be prepared in the same manner.

Foods to be deep-fried can be prepared during a slack time in the kitchen and frozen for later use. Because deep-fried foods cook rapidly, they can be cooked and served fresh and hot in very little time.

It is of utmost importance to keep the deep-fat fryer and the area around it clean and free from grease. Restaurant fires often start from collected grease near the fryer.

CONVENTIONAL DEEP-FAT FRYER



The deep-fat fryer may be either a conventional type or a pressure fryer. The fryers may be either gas or electric. They come in many sizes ranging from small counter units to large doughnut fryers.

The fryer should have an accurate thermostat in which there is little variation from the correct setting. Recovery of heat lost when adding foods must be rapid to prevent the food from absorbing grease. The frying range of 325° to 350° F. (162.7° to 176.6° C.) is used for most foods.

Deep-fat fryers have baskets of many sizes and come with large single units as well as with twin baskets. In many fryers, the kettle has a removable fat container and either a removable electric element or a gas burner. The kettle of the fryer may have an automatic basket lift or a bell to signal the end of the cooking process.

To operate the deep-fat fryer, place the fat in the kettle. Cover the highest coils of the electric fryer to prevent flash fires. Do not overfill the kettle, as the liquid fat expands. Turn the unit on and set the thermostat at the correct frying temperature.

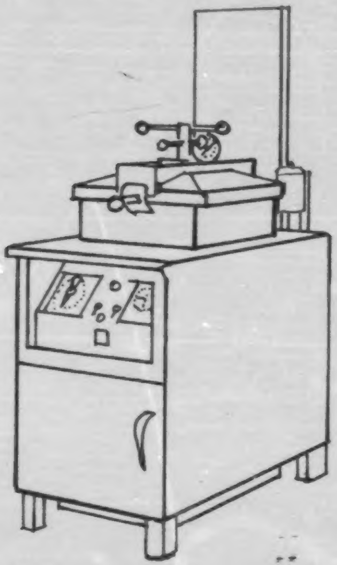
The baskets of the fryer should not be filled more than half-full to prevent bubbling over. When the baskets are overloaded, not only does it take longer to cook the food, but the food may also become grease-soaked and unappetizing. Because hot grease and water are explosive, it is important to drain excess moisture from foods that have been soaked in water before frying.

Also remove excess breading from the food to prevent loose crumbs from falling into the fat. Lower the basket into the hot fat. Remove the baskets from the fat when the cooking is completed, and drain the food.

Before cleaning the deep-fat fryer, turn the unit off and strain the warm fat through the cone filter. Store the fat if so desired. After draining the fat, fill the unit with water and detergent and bring the solution to the boiling point. The kettle should be boiled 15 to 20 minutes. Drain and rinse with clean water. Repeat the rinse process twice. Dry the kettles and baskets before replacing the fat in the kettle.

Raise the coil and clean thoroughly. When it is necessary to scrub the coils and elements, use a soft brush, as wire brushes can wear the heating elements thin. The heating elements on some electric models can be turned to a low temperature to burn off carbon deposits. Wash the exterior parts of the deep-fat fryer with a detergent solution and dry them with a soft cloth.

PRESSURE TYPE DEEP-FAT FRYER



This fryer fries and steam-cooks the food simultaneously, allowing for a shorter cooking time. The operation is similar to a conventional fryer except for sealing the lid on the pressure fryer. The lid traps the natural moisture from foods and uses it as steam. The temperature of the fat is held at 240° to 325° F. (115.5° to 162.7° C.) for all food. Cooking time does not exceed seven minutes, and less moisture is removed from the food.

Clean the pressure fryer by closing the drain valve and filling the kettle with a mild solution of detergent, water, and one-half cup of deep-fat fryer cleaner. Bring the solution to a boil and scrub the kettle with a stiff brush. Drain and refill the kettle with water. Neutralize the alkali left by the cleaning compound by adding one-half cup of white vinegar to the water. Bring the mixture to a boil; drain and rinse the kettle with hot water. Dry the kettle and elements thoroughly with a soft, dry cloth.

QUESTIONS:

1. When should the "High" setting on electric ranges be used?
2. On gas ranges without pilots, when should you light the match?
3. Draw the positions of the burner knobs for "Off," "High," and "Low" for a gas hot top burner.
4. List three functions of the exhaust hood.
   a.
   b.
   c.
5. What is meant by "seasoning" the grill?
6. How is a grill seasoned?
7. Draw the positions for the setting of a broiler on "High," "Medium," "Low," and "Off."
8. List the foods that may be prepared by broiling.
9. What control is used to raise or lower the food in relation to the heat source of the broiler?
10. What temperature range is used for deep-fat frying most foods?
11. How full should the baskets of the deep-fat fryer be filled?
12. What happens when the baskets are overloaded?
13. What are foods which have been fried in deep fat called on menus?

ASSIGNMENT:

I. Identify the types of surface cooking equipment used at your training station. List the procedures followed at your training station for the use and care of each piece of surface cooking equipment. Check to see if improvement can be made in your duties when using and caring for the surface cooking equipment.

GROUP WORK:

I. Listen to a guest speaker from a utility company explain the use and care of commercial cooking equipment.

II. In small groups, summarize the general use and care of surface cooking equipment. Estimate the consequences of improper use and care of the surface cooking equipment. Present this information to other groups.

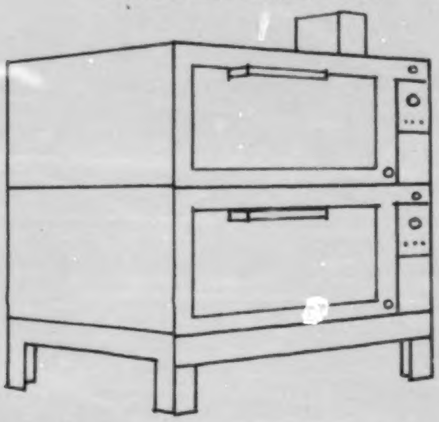
UNIT VII-3

LARGE EQUIPMENT FOR COOKING FOOD

SUBJECT:	Ovens
TASK:	17. Select and use correctly proper piece of equipment for cooking food.
OBJECTIVES:	When you finish this lesson, you should be able to a. describe functions of and procedures for use and care of ovens b. identify types of ovens.

Ovens cook with dry heat. They may be operated by either gas or electricity. Ovens are available in convection or conventional types.

STACK OR DECK OVEN



The deck oven is used for roasting, baking, and oven frying, and it may be operated by either gas or electricity. The first step in heating an electric deck oven is to turn the directional heat control switch to "Medium" or "High," as needed. Turn the switch on and set the thermostat at the desired temperature. Allow the oven to preheat before the food is placed in it. Remember that the oven does not preheat any faster when it is set at a higher temperature. When the oven reaches the proper temperature, place the food in the oven. Load the decks as evenly as possible. Place the pans over the entire deck area, but keep the pans about two inches away from the walls, the door of the oven, and from each other to allow space for the circulation of heat.

Do not rest heavy pans on the door, as this may cause the door to spring and prevent it from closing tightly. Keep the vent control closed completely to prevent heat from escaping. To prevent loss of heat and to produce a better product, avoid excessive opening of the door.

The first step in the operation of a gas deck oven with a pilot light is to turn on the main burner valve. If the oven does not have a pilot, the first step is to turn the thermostat as high as possible. Light the match before turning on the main burner valve. Do not close the oven door until the oven is lighted.

After lighting the burner, set the thermostat at the desired temperature. Just as with the electric oven, setting the thermostat at a high temperature does not decrease the length of time necessary for preheating. When the oven reaches the proper temperature, place the food in the oven.

To increase the temperature on either the gas or the electric oven, reset the thermostat dial and wait until the "oven ready" light goes out before loading the oven. To lower the oven temperature, turn the thermostat below the actual temperature required and open the oven door until the "oven ready" light goes on. Close the door, reset the thermostat, and wait for the "oven ready" light to go out again before loading the oven.

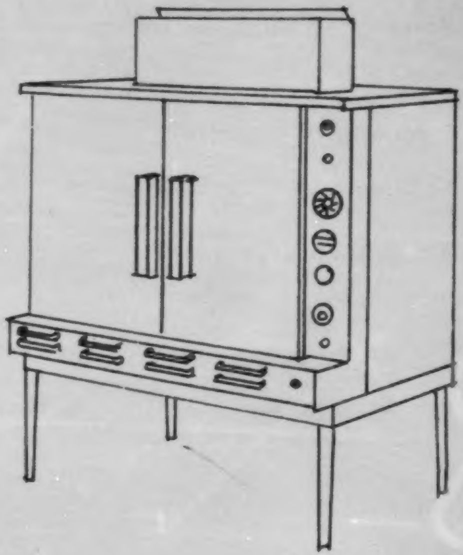
Let the oven cool first, then clean the deck ovens daily by scraping them with an oven scraper to remove deposits. Clean the interior oven walls with a damp cloth or wire brush. At intervals, vacuum crumbs from the return air passage. You may use a solution of one part household ammonia and one part water to clean the exterior surfaces.

CONVECTION OVEN

The convection oven is used in many hospitals, restaurants, nursing homes, commercial and industrial cafeterias, and drive-ins. Electric or gas convection ovens may be in single units or double stacks.

Convection ovens contain a fan to increase air circulation. The fan circulates heated air across the food for more rapid cooking. Use of the convection oven shortens cooking time for most foods and helps to reduce meat shrinkage.

To operate the convection oven, set the temperature dial to the desired setting. Turn the power switch on to preheat the oven. When the temperature signal light goes off, the oven is preheated. Open the doors, load the oven quickly, and close the doors. The oven and the blower operate only when the doors are closed. Set the automatic timer for the proper cooking time. The automatic timer will ring when the cooking time is completed.

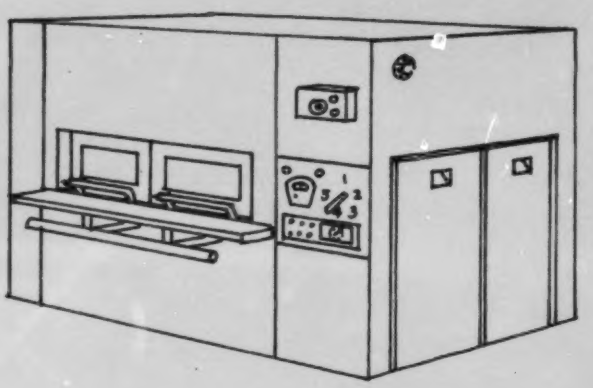


To clean the convection oven, wipe the inside of the oven and the racks. Use a wire brush or spatula to loosen food particles and spillage, and sweep the oven clean. For hardened food spillage, sprinkle salt on the hardened food, turn the thermostat to 500° F. (260° C.), close the oven door, allow the spillage to carbonize completely, and scrape the surface of the oven with a spatula.

Wipe the stainless steel front of the oven with a damp cloth and polish it with a soft, dry cloth. Wash the exterior surfaces of the oven daily with a warm water-mild detergent solution. Rinse the surfaces with clean water and dry with a soft cloth. Use a cloth gently on the polished areas, as hard rubbing removes polish. Wash the plastic control knobs with the warm water-mild detergent solution; dry and polish the knobs with a soft cloth.

The blower wheel needs to be cleaned occasionally. To clean the blower wheel, pull it forward and lift it up and out to remove the racks. Lift up to remove the right and the left rack supports. Take out the thumb screws on the rear inner wall of the oven and remove the blower baffle. Use a wire brush to scrape the wheel. Wipe the wheel with a moist cloth to remove loose particles. Reverse the disassembly procedure to replace the hardware.

ROTARY OVEN

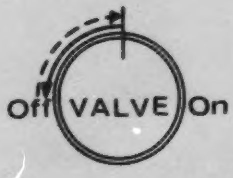


Rotary ovens are used in large operations and are selected particularly for baking pies and bread. They may be gas, electric, or oil-fired. The food to be cooked is placed on movable trays in the oven. The trays revolve around the heat source on the same principle as a Ferris wheel revolves upon a vertical axis.

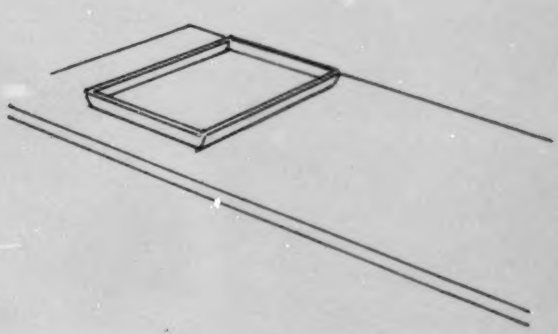
To operate the rotary oven, turn on the reel motor, set bank, and control bank. The shelves should rotate during the preheat time to keep them from warping. Turn on the exhaust fan to eliminate heat in the kitchen. Turn the *control bank* switch to the proper temperature. (The control bank operates the circuit for cutting the heat in or out.) Turn off the *set bank* switch when the oven reaches the appropriate temperature. (The set bank needs to be left on during the operation of some models.) Reset the set bank if the temperature has to be raised.

Pull out the exhaust and steam knobs if the temperature needs to be reduced. If steam has not been used, pull out only the exhaust knob. This allows the heat to escape and reduces the temperature.

Some rotary ovens use steam. When preparing to use steam, leave the bottom valve (*condensate valve*) open at all times. The condensate valve drains the condensation from the line and keeps the moisture from running into the oven. Do not turn steam on during the preheat period. When the oven has preheated, turn on the steam by turning the steam inlet valve to half-open and then back to barely open.



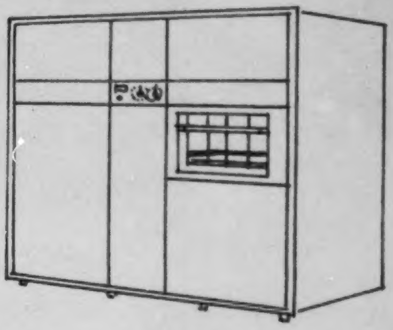
Rotating the shelves while loading the oven also eliminates too much weight in one area. Even distribution of the pans keeps the shelves in balance. Place two or three pans on a shelf, rotate the shelf, and proceed to follow the same procedure with each shelf. Return to the first shelf and complete the loading procedure by placing additional pans on the shelves. The pans should not extend over the front edge of the shelf but should be centered on the shelf.



To clean the rotary oven, shut off the main circuit breaker. Do not turn the breaker on until the oven is clean. Wash the shelves with a water-detergent solution. Clean the exterior of the oven with a water-detergent solution and dry the exterior with a soft cloth. Turn on the breaker. Heat the oven to eliminate moisture and to prevent rusting.

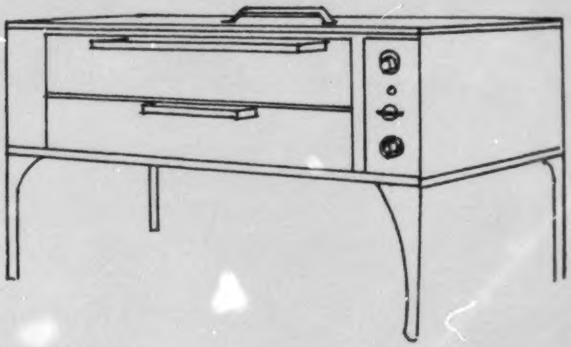
REEL OVEN

Reel ovens are used in both large and small restaurants and institutions. Six-pan units, which can hold 350 pounds of meat or 48 loaves of bread, are often used in small food service operations.



The reel or revolving oven is compact and space-saving. It works on the principle of a Ferris wheel. The flat trays are held between two revolving arms and are stabilized to keep them level and sway-proof. The reel oven is cleaned by following the procedure for the rotary oven.

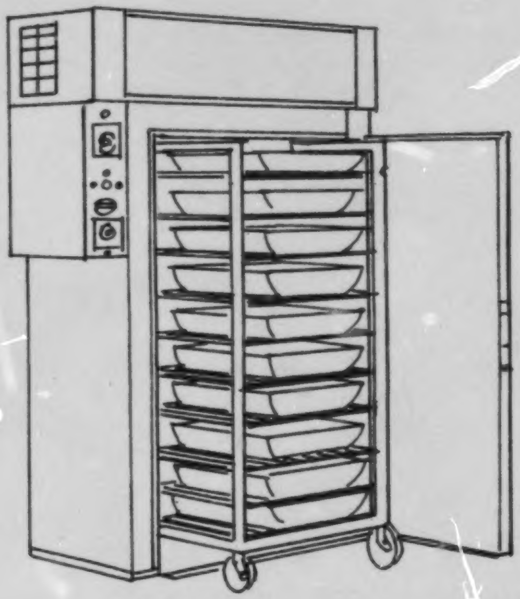
PIZZA OVEN



The pizza oven reaches a hotter temperature than the conventional oven. It is equipped with a special high-temperature thermostat control up to 700° F. (371.1° C.). The pizza oven has indicator lights, interior lights, and a switch.

Clean the pizza oven regularly. After the oven has cooled, scrape the interior with a wire brush. Wash the exterior surfaces with a solution of detergent and water. Polish the stainless steel surfaces with a nonabrasive, stainless steel cleaner. Scrape the racks with a wire brush and wash them with a water-detergent solution.

RECONSTITUTION OVEN

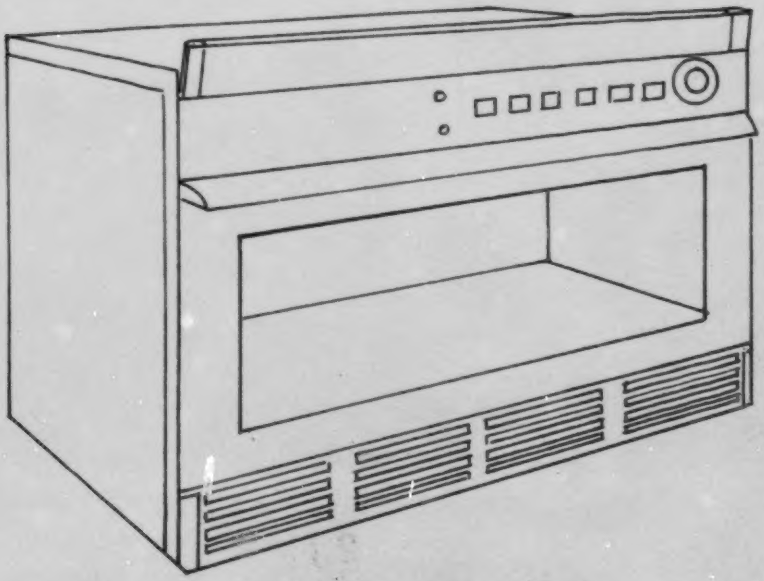


The reconstitution, or reconstituting, oven is used for rapid heating, especially of convenience foods. The oven has a combination heat and refrigeration cycle. Frozen foods may be stored either in the unit until reconstituting time or moved to the heating unit from the frozen storage area.

The reconstitution oven is a quartz-type oven and operates at 650° to 750° F. (343.3° to 398.8° C.). Quartz units inject radiant heat into the frozen food. The convected heat is held by the refrigerated cycles, causing rapid defrosting and reconstitution of the frozen food. Due to the speed of the defrosting process, little moisture and flavor are lost. It is not necessary to thaw the frozen product before heating it in the reconstituting oven.

Follow manufacturer's instructions to operate. Clean the inside and outside carefully, wiping up all spills and drying with a soft cloth.

MICROWAVE OVEN



REFERENCE: Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1974. pp. 106-109.

Microwave ovens or electronic ovens cook in minutes the same food that requires hours in a regular oven. Microwave ovens defrost frozen foods and reheat precooked foods in seconds. They are better suited to the fast production of individual servings than they are to heating the quantities of food usually required at one time for dining room service.

The *microwaves,* or energy waves, are bounced off the metal walls of the oven and through the food containers, where they are absorbed by the food and converted into heat. The door gaskets and area around the opening of the oven should be kept clean. If the door or hinges have been damaged, do not operate the oven.

Food containers which may be used in the microwave oven are glass, paper, and ceramic. Aluminum foil may be used in some microwave ovens. Metal containers should not be used in the microwave oven, as the metal may cause damage to the unit. The use of plastic containers in the microwave oven is questionable. Some plastic containers may be used with good results; other plastic containers affect the taste of the food and give off a bad odor as the plastic heats.

To operate the microwave oven, place the food item in the compartment and close the door. Set the timer for the desired time and press the control button for the correct amount of energy. Most microwave ovens shut off automatically when the "time set" is completed.

To ensure safe operation of the microwave oven:

1. Never operate an oven if the door does not close firmly or is bent, warped, or otherwise damaged.
2. Never insert objects through the door grill or around the door seal.
3. For safety's sake, when using ovens manufactured before October, 1971, stay at least an arm's length away from the door while the oven is operating.
4. Never tamper with the oven safety switches.

To clean the microwave oven, wipe the metal pieces with a clean cloth and a water-detergent solution. Dry with a soft cloth. Wipe up spills immediately or the oven will not operate properly. Clean the oven at least once a day.

Always follow the manufacturer's instructions and safety measures carefully. Microwave ovens present an entirely new way to cook so don't assume you know better than the manufacturer does.

QUESTIONS:

1. Briefly list the three steps in heating an electric deck oven.
   a.
   b.
   c.

2. Why should a person avoid excessive opening of an oven door during baking?

3. Jane forgot to turn on the oven at the time the head cook told her. When she remembered to do it, she asked Betty if it would preheat faster if she set the thermostat on high. What should Betty have told her?

4. What is the principal use of rotary ovens?

5. Which oven has a combination heat and refrigeration cycle?

6. List three types of containers which may be used in the microwave oven.
   a.
   b.
   c.

7. The pizza oven has a thermostat control up to ____________________ degrees.

8. Microwave ovens are best used for ____________________ servings.

ASSIGNMENT:

I. What types of ovens are used at your training station? List the procedure followed by your training station for use and care of each oven. Check to see if any improvement can be made in your duties when using and caring for each oven.

GROUP WORK:

I. Compare the procedures for the use and care of the ovens at your training station with the procedures used by other food service and dietary employees. Note the various functions of ovens in food service.

II. Visit a restaurant supply store to learn about the various types of ovens used in food service. Identify the type used at your training station.

UNIT VII-4

LARGE EQUIPMENT FOR COOKING FOOD

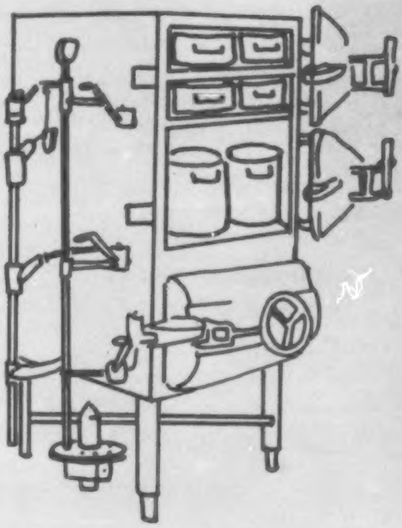
SUBJECT: Steaming Equipment

TASK: 17. Select and use correctly proper piece of equipment for cooking food.

OBJECTIVES: When you finish this lesson, you should be able to
a. describe procedures for operation and care of steaming equipment
b. list safety precautions related to use of steaming equipment.

In steam-fired equipment, the steam may come in direct contact with the food, or the steam may surround the food compartment and not come in direct contact with the food. The water in steam equipment may be heated by gas or electricity. Cooking with steam is easy, economical, fast, and safe.

COMPARTMENT STEAMER



The compartment steamer allows steam to come in direct contact with the food. The compartment steamer is used for steaming fruits, vegetables, meat, fish, and poultry. Tall, narrow, perforated baskets should be used when preparing cabbage, cauliflower, root vegetables, and tubers. Flat, narrow, or wide perforated baskets are used for greens, root vegetables, and tubers. Tall, narrow, solid baskets are used for large cuts of meat, fowl, and root vegetables.

To operate the compartment steamer, preheat the unit. Close compartment doors and seal the doors by turning the door wheels. Each compartment has an individual steam control and operates independently. Pull the steam control valve out and let the pressure rise to 5-15 pounds. When the pressure is correct, push the steam control valve in and wait a couple of minutes for the compartment to clear. Open the door. Place pans of food inside. Close the door and seal it. Pull the steam control valve out to allow the food to steam. As the steam starts, tighten the door seal if there is steam leakage at the edges of the door. A hissing sound will be heard as the air is discharged from the compartment. When the hissing sound stops and the desired pressure has been reached, begin timing the food. When the cooking time is completed, push the steam control valve to let the pressure drop. *Allow the pressure to reach zero* and open the door slightly to let the steam clear. Open the door and remove the food gently to prevent hot foods from splashing.

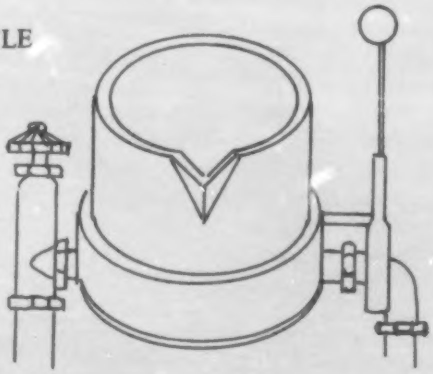
The length of the cooking time depends on the type of steamer, the kind and the amount of food cooked, and the containers used. Use a timer to prevent overcooking.

Clean the compartment steamer daily. Wash the interior of the compartment with a detergent and water solution; rinse and wipe the compartment dry. Remove the water by means of the drain in the bottom of each compartment. Scrub both sides of the grates with a brush; rinse and dry the grates. Clean the outside of the unit with the same solution and a sponge or cloth. Check the bottom drain to make certain it is clean and free of food. Clean the pressure screws with the detergent-water solution. Check the gasket daily and replace the gasket when it shows evidence of hardening or damage. Scrub the door gasket thoroughly. (Fats, food acids, and alkalies deteriorate the gasket, and off-flavors may develop.) To prevent the gaskets from sticking to the compartment, leave the doors of the compartment slightly open when the steamer is not in use.

Safety precautions when using the compartment steamer include:*

1. Guard against possible burns when opening the door.
2. If steam pressure rises above the safe level, push the steam control valve in, and report the problem to your training supervisor.
3. To prevent burns in removing food from the steamer, use dry potholders, and make certain that space is available for placing the pans as they are removed.
4. After the steamer cools, clean spilled food so that the vent does not become clogged.
5. See that the proper water level is maintained in self-contained steamers to prevent the boiler from burning out. Check the water level at intervals during the operation. Never use a steamer without water.
6. If steam leaks around door after tightening, report the leakage to your training supervisor.

STEAM-JACKETED KETTLE



The steam-jacketed kettle is fast, safe, economical, and easy to use. Steam enters the jacket and comes into contact with the cold inner wall. The steam *condenses* (the vapor changes into liquid), conducting its heat through the wall and into the product being cooked. The steam-jacketed kettle is used to braise, boil, or simmer. The kettles range in size from the 10-quart table model to the 200-gallon floor or wall model.

To operate the steam-jacketed kettle, turn the boiler on and wait for the pressure to reach the proper level. Open the water valve. For electric and gas self-contained kettles, keep the water at the halfway level in the gauge glass. For kettles requiring the addition of water, fill the jacket according to the manufacturer's instructions. Check the safety valve. For the electric or direct steam kettle, turn on the steam valve or electric switch. For the gas kettle equipped with a pilot, turn on the main burner valve. (If the pilot goes out, check with your supervisor.) Adjust the heat or steam to the proper temperature and pressure. Add the food to be cooked.

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*U.S. Department of Agriculture. *Training Course Outline on Use and Care of Equipment.* Washington, D.C.: U.S. Government Printing Office, 1960. p. 50.

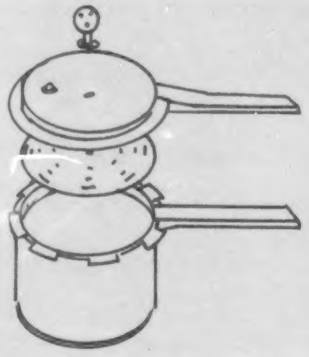
When cooking is completed, turn off the steam valve and remove the food from the kettle. Fill the empty kettle with warm water above the cooking level until it is time to clean the kettle. The warm water loosens food from the inside walls of the kettle.

To clean the steam-jacketed kettle, open the drain valve and drain the water from the kettle. The food particles are caught in the screen that covers the draining device. Scrub the inside of the kettle with a brush, warm water, and detergent. Scrub the underside of the lid and hinges. Use the same water and detergent solution to clean the legs, pipes, and outside of the kettle. Drain the soapy water. Fill the kettle one-third full with warm water and rinse the inside and the outside of the kettle. Drain the rinse water from the kettle. Wipe the kettle dry with a soft cloth and leave the lid open.

Safety precautions when using the steam-jacketed kettle include:*

1. Guard against possible steam burns when raising the lid; lift the lid away from you so that steam does not scald hands, arms, or face.
2. See that the proper water level is maintained in the water jacket.
3. If the water jacket has gone dry, do not add water to the jacket without first allowing the kettle to cool.
4. Be certain that the safety valve is in good working order.
5. If the steam pressure rises above the safety level, turn the kettle off and report the problem to your training supervisor.
6. To prevent burns, use long-handled paddles for stirring and long-handled dippers for removing food.

PRESSURE SAUCEPAN



The pressure saucepan is generally used for vegetables. Poultry, meats, seafoods, cereals, eggs, puddings, and fruits are also prepared in the pressure saucepan.

The pressure saucepan operates by locking steam in the pan. The steam raises the temperature and permits food to cook rapidly.

The heat is transferred from the steam to the food. When steam reaches the cold food, it condenses and gives off heat. Steam condensation continues until the heated food is brought to the same temperature as the steam (212° F. or 100° C.). The pressure saucepan has a lid which locks in position, a vent tube which allows steam to escape, and a safety valve which automatically releases steam if the pressure becomes excessive.

Clean the pressure saucepan after every use. Wash and scrub the pan with a warm water and detergent solution. Rinse with hot water and air-dry. It may be necessary to soak the pressure saucepan before washing if there is a heavy coating of food or grease.

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*U.S. Department of Agriculture. *Training Course Outline on Use and Care of Equipment.* Washington, D.C.: U.S. Government Printing Office, 1960. p. 41.

QUESTIONS:

1. What should you do before turning on a compartment steamer?

2. This is the procedure John followed when he used the compartment steamer:
   1) Pushed valve to release steam
   2) Opened door immediately
   3) Placed food in steamer
   4) Closed door
   5) Started timing

   Did he use the correct procedure?

   If not, what should he have done?

3. How should you guard against possible steam burns when raising the lid of the steam-jacketed kettle?

4. What type of food is usually cooked in the pressure saucepan?

5. What five types of foods are cooked in a compartment steamer?
   a.
   b.
   c.
   d.
   e.

6. What determines the length of cooking time required in a compartment steamer?
   a.
   b.
   c.

7. Why does food cook quickly in a pressure saucepan?

8. The steam-jacketed kettle is used to ______________________, ______________________, and ______________________ foods.

ASSIGNMENT:

I. Examine the manufacturer's instruction booklets for information on the use and care of steaming equipment. What safety procedures are stressed in the instructions? What safety procedures are stressed at your training station? Compare the safety procedures stressed.

GROUP WORK:

I. With other food service employees, discuss the accidents involving steam equipment that have occurred in your training station or in other food service establishments. Discuss how each accident might have been prevented.

II. Observe a demonstration on the use and care of steaming equipment. Note the safety precautions followed.

UNIT VIII-1

TECHNIQUES OF FOOD PREPARATION

SUBJECT: Quality Food Preparation

TASK: 18. Read recipes, know terminology, and follow directions.

OBJECTIVES: When you finish this lesson, you should be able to
a. describe general procedures for food preparation
b. summarize characteristics of standard recipes.

REFERENCE: Cornelius, Ethelwyn G. *Food Service Careers*. Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 97-100.

GENERAL PROCEDURES IN FOOD PREPARATION

Quality food must be produced and served in health care and food service establishments in a given amount of time and at a reasonable cost in order to satisfy both the diner and the management. Labor costs for food preparation make it necessary for the personnel, equipment, and supplies to be organized efficiently. Speed and accuracy are improved by using time and skills wisely. The following procedures will contribute to the development of speed and accuracy on the part of the food service or dietary employee.

1. Read the recipe carefully before beginning and follow the directions exactly as given for best results.
2. Check to see that all the necessary ingredients are available.
3. Make substitutions in ingredients only when told to do so.
4. Check to see that the necessary equipment or a suitable substitute is available before beginning.
5. Be able to apply terms used in the recipe.
6. Estimate the time required for preparation of the product and plan so that the product will be finished at the proper time.
7. When in doubt, ask. Never guess.

STANDARD RECIPES

Diners expect the food to be prepared so that it is consistent in appearance and taste each time they order that particular food. Success in the area of food preparation involves using recipes as guides for preparing food of high quality. In order to achieve quality products time after time, a cook should standardize recipes and methods of food preparation.

Have you ever thought about recipes being something like formulas? A chemist follows carefully a formula to make a compound, just as a cook must follow carefully a recipe to make a food product. A standard or dependable recipe is, therefore, a must if the result is always to be of the same quality. Standard recipes include the following information:

1. Amount of ingredients
2. Utensils to be used
3. Clear directions about how to combine ingredients
4. Cooking temperatures and length of cooking time
5. Number of servings
6. Size of servings
7. Number of portions per pan, quart, or gallon
8. Terms which are familiar to most cooks.

QUESTIONS:

1. Mary has been assigned to prepare plain muffins. It is now 10:30 a.m. and the muffins are to be served at 12:00. Using the information below, compare Mary's preparation procedures with the general procedures for food preparation given on p. 226.

Plain Muffins

5 ¼ qt. all-purpose flour
2 ¼ c. sugar
1 c. less 2 T. baking powder
¼ c. salt
10 large eggs
2 c. nonfat dry milk
2 qt., 2 1/3 c. water
2 ¼ c. shortening

Blend dry ingredients 5 minutes in mixer on low speed. Cut in fat. Beat eggs and combine with water. Add to dry ingredients. Stir only until dry ingredients are moist and mixture has a rough appearance. Using No. 16 scoop (¼ cup), portion into greased muffin pans. Bake 20 minutes at 400° F. or 204.4° C. (hot oven). Makes 100 muffins.

Mary proceeded in the following manner:

1) She measured the shortening and then checked to see that she had all the necessary ingredients.
2) She blended the dry ingredients for 5 minutes and cut in the fat.
3) She beat the eggs and added the water.
4) She next beat the dry ingredients into the liquid mixture.
5) Then she used a No. 16 scoop to portion the batter into greased muffin tins.
6) Finally, she turned the oven to 400° F. (204.4° C.). It was then 11:50 a.m.

Which four procedures in food preparation did Mary fail to observe?

a.
b.
c.
d.

2. Tom was assigned the task of preparing blueberry muffins. He was instructed to use the preceding recipe for plain muffins; however, 2 c. of drained, canned blueberries were to be added to the muffin mix. Tom prepared the muffins as follows:

   1) He blended the dry ingredients.
   2) He cut the shortening into the dry ingredients.
   3) He set the oven for 400° F. (204.4° C.).
   4) He greased the muffin tins.
   5) When he was ready to mix the dry ingredients with the liquid ingredients, he discovered that he did not have any eggs.

   What four procedures in food preparation did he fail to observe?

   a.
   b.
   c.
   d.

3. The head cook asked Ethel to experiment with three recipes the cook had found for tuna casserole. Ethel carefully measured and mixed the ingredients in the first recipe and put the casserole into the oven. Ethel had several questions to ask about the recipe as she prepared the casserole: (1) What cooking temperatures should be used? (2) How many servings would it provide? and (3) What were the meanings of several terms used in the recipe? When the casserole was taken from the oven, it was overcooked and it provided fewer servings than she expected.

   a. What information was missing from the recipe that should be included in a standardized recipe for quantity food preparation?

   b. Why is it especially important to use standardized recipes in a food service establishment?

4. In what order are the ingredients and steps in a standard recipe written?

ASSIGNMENT:

I. Evaluate a quantity recipe. Keep in mind the information that a standard recipe should include.

GROUP WORK:

I. Work in small groups to study a specific quantity recipe. Describe how to use it correctly. Consider the procedure that will contribute to the speed and accuracy of food preparation.

UNIT VIII-2

TECHNIQUES OF FOOD PREPARATION

SUBJECT: Terminology Used in Food Preparation

TASK: 18. Read recipes, know terminology, and follow directions.

OBJECTIVES: When you finish this lesson, you should be able to

a. identify abbreviations used in recipes
b. make standard substitutions in recipes
c. use standard equivalents in preparing quantity food
d. select the most efficient measurement for the ingredients in a recipe
e. identify the terminology used in recipes.

REFERENCE: Cornelius, Ethelwyn G. *Food Service Careers*. Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 101; 117-119.

COMMON ABBREVIATIONS FOR FOOD PREPARATION

Abbreviations are used to save time and space in writing recipes. Ability to use quantity recipes is dependent on knowledge of commonly used abbreviations. Abbreviations commonly used in food preparation are given below:

approximately = approx.	milligram = mg.
average = av. or avg.	milliliter = ml.
bunch = bch.	minute = min.
bushel = bu.	monosodium glutamate = M.S.G.
calorie = Cal.	ounce = oz.
centimeter = cm.	peck = pk.
cup = c.	pint = pt.
deciliter = dl.	pound = lb.
degrees Centigrade = °C.	quart = qt.
degrees Fahrenheit = °F.	second = sec.
dozen = doz.	small = S., sm., or sml.
few grains = f.g.	
fluid = fl.	speck = spk.
gallon = gal.	square = sq.
gram = gm.	tablespoon = T., tb., or tbsp.
hectogram = hg.	
hour = hr.	teaspoon = t., ts., or tsp.
kilogram = kg.	temperature = temp.
large = lg. or lge.	weight = wt.
liter = l.	

Additional abbreviations which may be found in quantity food recipes are the following:

as purchased (A.P.)–This means that the weight or measure should be taken without any preparation of the food. Example: flour unsifted, lettuce whole, eggs unshelled, etc.

edible portion (E.P.)–This means that only part of the food normally eaten or used in cooking is being considered. Peanuts after being shelled, eggs out of shell, etc. Recipes generally specify any preparation an ingredient needs before it is used, *i.e.*, sift, chop, mince, etc.

SUBSTITUTIONS

Food service and dietary employees should become familiar with the substitutions used commonly in recipes. Substitutions may be made to cut down on cost, to save time, to increase the food value, or to make use of surplus commodities. However, make no substitutions unless your supervisor says to do so.

Standard substitutions are:

1 sq. chocolate	= 3 T. cocoa and 1 T. fat
1 c. cake or pastry flour	= 7/8 c. all-purpose flour
1 T. cornstarch	= 2 T. flour (for thickening)
1 t. baking powder	= ¼ t. soda and ½ t. cream of tartar
1 c. milk	= ½ c. evaporated milk and ½ c. water = 1 c. reconstituted nonfat dry milk plus 2 t. fat
1 c. sour milk or buttermilk	= 1 c. fresh milk plus 1 T. vinegar or lemon juice (let stand 5 minutes)
1 c. sour milk and 1 t. soda in flour mixture	= 1 c. fresh milk plus 3 t. baking powder
1 T. corn syrup (in candy)	= 7/8 t. cream of tartar
1 c. butter	= 1 c. margarine or 7/8 c. fat plus ½ t. salt
1 whole egg	= 2 egg yolks or 2 T. dried whole egg plus 2½ T. water
1 c. honey	= 1 to 1¼ c. sugar plus ¼ c. liquid

EQUIVALENTS

The successful use of a recipe depends largely upon accuracy in measuring the ingredients. To be able to measure accurately, one must become familiar with the commonly used equivalents listed below:

EQUIVALENTS OF COMMON MEASURES

3 t.	= 1 T.	= 15 milliliters	4 qt.	= 1 gal.	= 3.8 liters
16 T.	= 1 c.	= 240 milliliters	8 qt.	= 1 pk.	= 9 liters
1 T.	= ½ fl. oz.	= 15 milliliters	4 pk.	= 1 bu.	= 35 liters
1 c.	= 8 fl. oz.	= 240 milliliters	16 oz.	= 1 lb.	= 454 grams
2 c.	= 1 pt.	= .480 liter	spk.	= less than 1/8 t.	= .50 milliliters
1 pt.	= 16 fl. oz.	= .480 liter			
2 pt.	= 1 qt.	= 0.95 liter = 950 milliliters	f.g.	= less than 1/8 t.	= .50 milliliters
1 qt.	= 32 fl. oz.	= 0.95 liter = 950 milliliters	pinch	= less than 1/8 t.	= .50 milliliters

TERMS USED IN FOOD PREPARATION

To be successful in quantity food preparation, food service and dietary employees must be able to understand terminology used in standard recipes. They must master certain food preparation techniques as well. Some terms are defined below to provide a basis for interpreting directions used in recipes for meats, salads, vegetables, fruits, desserts, and pastries. The terms have been grouped into areas in which they are used most frequently. However, many of the terms listed are used in other types of cookery as well. Definitions may vary so always have someone at your training station demonstrate how it is done there.

No attempt has been made to make this list complete. Dishes native to other countries are very popular in the United States. For the gourmet chef, French is an absolute must. Some of the terms given here are of French origin. Students working in food service establishments which feature dishes native to other countries should become familiar with foreign terms.

TERMS USED IN MEAT COOKERY

Bake	to cook by heat in an oven
Barbecue	to cook by a direct heat source; food may or may not be basted with a sauce or drippings during cooking
Baste	to spoon liquid over food as it cooks; the liquid may be drippings from the food
Bouillon	a clear broth from meat or vegetable juices
Bouillon Cubes	a commercially prepared, concentrated broth packaged in cubes
Braise	to cook slowly in a covered utensil in a small amount of liquid or in steam; meat may or may not be browned in small amount of fat before braising
Bread	to roll in bread crumbs, as breaded cutlets
Broil	to cook by exposure to direct heat on a grill or over live coals, as broiled chicken or steaks
Croquette	usually a meat plus other ingredients shaped into cones, breaded, and fried or baked
Crumb	to coat or top with crumbs, as a casserole dish; technique may be used with other foods
Cube	to cut into squares usually about one-half inch in size
Dip in Batter	to dip food in smooth mixture, such as flour and liquid, prior to frying

Dredge	to coat with flour or other fine substance
Dust with Flour	to sprinkle with flour, as "flour the meat;" technique may be used with vegetables also
Entrée	the name given to the food dish served as the main course
Fillet (Filet)	a piece of meat or fish which is boneless or from which all the bones have been removed
Flake	to break into small bits by using a fork, taking care not to mash the pieces
Fricassee	to cook by braising; usually applied to fowl, rabbit, or veal cut into pieces
Grill	to cook by direct heat
Grind	to reduce to particles by cutting or crushing
Lard	any form of pork fat, as salt pork's, bacon's, or pig's fat
Marinate	to let food stand in a marinade, usually an oil-acid mixture like French dressing, to tenderize or add flavor; technique commonly used with vegetables or meats; may be applied to other foods
Roast	to cook in an uncovered pan in an oven
Roux	a mixture of fat (such as meat drippings) and browned flour used to thicken and add flavor to sauces, soups, and gravies
Score	to make thin parallel cuts in one or more directions on food surface
Sear	to brown surface of meat by heating at high temperature for short time; adds color and flavor to meats
Season	to improve flavor by adding salt, pepper, or spices
Smother	to cover with sauce or vegetables, as smothered calf's liver covered with onions
Stuff	to pack a mixture into a cavity, as with a turkey or a bell pepper
Truss	to secure the wings and legs of a bird with pins or twine

TERMS USED IN PREPARATION OF SALADS, VEGETABLES, AND FRUITS

Au gratin	dishes prepared with a white sauce, topped with bread crumbs and cheese, then baked for a short period
Blanch	to dip into boiling water, making the skins of fruit and nutmeats easy to remove, or stopping action of enzymes
Candy	to cook in a heavy syrup until plump and transparent or crystallized; also to cook a second time in sugar or syrup
Chill	to place in refrigerator until cooled to a temperature between 40° to 45° F. (4.4° to 7.2° C.)
Chop	to cut into pieces less than one-half inch in diameter with a sharp knife or other tool
Congeal	to cause foods to become firm by lowering the temperature enough to thicken the gelatin in food
Cool	to lower the temperature
Core	to remove the core or center of fruit (apples, etc.)
Cut up	to divide food into small, irregularly shaped pieces
Dice	to cut into small cubes
Garnish	to add a decoration (usually edible) to a food to make it more attractive
Grate	to form flakes by rubbing food with pressure against a grater
Hull	to remove the stem and cap from berries; also, to remove husks and silks from corn
Julienne	to cut foods, such as potatoes, cheese, meats, and carrots, into pieces the size and shape of matchsticks
Mash	to pulverize by pressing and working with a wire or flat-headed device
Mince	to cut or chop into very small pieces
Pare	to cut off the outside covering with a knife or other utensil
Peel	to strip off the outside covering by hand
Pit	to remove the stone (pit) or seeds from fruit

Puree	to force cooked foods through a strainer or to run them through a blender to make a thick, smooth pulp
Reconstitute	to restore foods to their normal state, usually by adding water or heating, as dried milk, frozen juice, or frozen entrées
Scallop	thinly sliced layers of food sprinkled with flour, salt, pepper, bits of fat, or cheese; food is layered until baking dish has desired amount; liquid (vegetable juice or milk) is added; then food is baked in a slow oven
Thaw	to bring to a temperature above freezing
Unmold	to loosen and remove from a container

SURFACE COOKING TERMS

Boil	to cook in water or other liquid until or as bubbles rise continuously and break on the surface
Caramelize	to heat sugar, or foods containing sugar, until brown
Coat-the-spoon	to cover a metal spoon with a film or thickened sauce
Coddle	to cook in water below the boiling point, as with coddled eggs
Cool	to lower the temperature
Crystallize	to cause to form crystals (primarily used in making candy and frozen mixtures)
Deep-fat Fry	to cook in deep fat
Dilute	to lessen the strength, thickness, or flavor of a mixture, usually by adding water
Dip	to plunge into a liquid or dry ingredient until covered and then to remove quickly
Dissolve	to combine or mix a solid ingredient with a liquid until a solution is formed
Fry	to cook in fat
Glacé	to coat with a thin sugar syrup cooked to the cracking stage
Grill	to fry, sauté, or toast on a solid heated surface or griddle; a form of pan-broiling

Melt	to liquefy by heat
Pan (Panning)	to cook a vegetable in a tightly covered skillet in a small amount of fat; no water is added; (term has a different meaning in commercial baking)
Pan-broil	to cook uncovered on a hot, ungreased surface (usually a frying pan), pouring off fat and liquids as they accumulate
Pan-fry	to cook in a small amount of fat
Parboil	to boil until partially cooked
Poach	to cook in a hot liquid, being careful to retain shape, as with poached eggs
Sauté	to brown quickly in a small amount of fat, turning frequently
Scald	to heat to a temperature just below the boiling point
Simmer	to cook in a liquid at a temperature of about 185° F. (85° C.); bubbles form slowly and break below the surface
Steam	to cook in steam with or without pressure
Stew	to simmer in a small quantity of liquid
Thicken	to cause a food to become firmer by the addition of eggs, flour, or other products and by cooking them for an additional period of time. Gelatin may be added to a hot food to make the food become firm when chilled.

BAKING AND PASTRY TERMS

Beat	to mix until smooth, using an up-and-over motion
Blend	to mix two or more ingredients thoroughly
Brush	to spread with a pastry brush, as melted fat
Cream	to stir or beat one or more foods until smooth and creamy; usually applies to fat and sugar
Cut-in	to chop fat into small particles in dry ingredients by using two knives or a pastry blender
Dot	to cover with small particles, as to dot with butter
Flute	to make an edge with a scalloped effect, as on pie crust

Fold	to combine ingredients by cutting vertically through a mixture and turning it over by sliding the spoon or rubber spatula across the bottom of the bowl with each turn
Knead	to press, fold, and stretch a dough, such as a yeast bread or biscuits
Leaven	to make light using an agent, such as yeast or baking powder
Level off	to move the straight edge of a knife or spatula across the edge of a measuring cup or spoon, scraping away the excess dry ingredient
Meringue	a mixture which is lightly browned in the oven of stiffly beaten egg whites and sugar
Mix	to combine ingredients
Mold	to mix, knead, or press into required consistency or shape
Scant	to fill a little less than a full measure; a scant teaspoon would be slightly more than ¾, and less than one full teaspoon
Sift	to separate into fine particles with a sieve
Soufflé	a baked dish that is made light by folding in stiffly beaten egg whites, as with cheese soufflé
Steam	to cook in steam with or without pressure
Steep	to let stand in a liquid below the boiling point in order to bring out flavor, color, or other qualities
Stir	to mix food ingredients with a circular motion
Timbale	drum-shaped pastry filled with a creamy mixture of chopped or puréed meat, vegetable, or other foods combined with eggs; pastries are cooked on a timbale iron
Toast	to brown with dry heat
Whip	to beat cream, eggs, or gelatin dishes rapidly so as to incorporate air and increase volume

QUESTIONS:

1. Differentiate between the following terms:
   a. Pan-fry – Sauté
   b. Dice – Mince
   c. Boil – Simmer
   d. Blend – Cream
   e. Chill – Cool
   f. Boil – Parboil
   g. Beat – Whip
   h. Cut up – Cut-in
   i. Blanch – Scald

2. Marsha's employer asked her to make a chocolate cake. The recipe called for 2 c. cake flour, 1 2/3 c. sugar, ½ c. shortening, 1 t. salt, 3 sq. melted chocolate, 1 c. sour milk, 1 t. soda, 3 eggs, and 1 t. vanilla. On checking her supplies, Marsha found all the needed ingredients except:

   3 sqs. chocolate
   1 c. sour milk
   2 c. cake flour
   1 t. soda

   If Marsha uses cocoa, sweet milk, all-purpose flour, and baking powder for the items she does not have, what amount of the substitutions will she use?

3. Marsha wants to make fudge icing for the cake.

The recipe called for:	*Marsha found:*
2 c. sugar	sugar
1 c. milk	a. * non-fat dry milk
¼ t. salt	salt
2 sq. chocolate	b. * cocoa
2 T. light corn syrup	c. * cream of tartar
2 T. fat	fat
1 t. vanilla	vanilla

   How can Marsha use the starred (*) ingredients as substitutes for the ingredients listed in the recipe? Give the amounts needed in each case and any additional ingredients she will need.
   a.
   b.
   c.

4. Classify the following food terms according to the four food preparation areas where they most probably would be used. Write the food terms in the column of the appropriate food preparation area.

bread
boil
chop
cream
cut-in
garnish
grate
marinate
mix
peel
baste
sift
braise
scallop
whip
fry
broil
blend
mince
sear
blanch
simmer

Meat Cookery	*Preparation of Salads, Vegetables, and Fruits*	*Surface Cooking*	*Baking and Pastry*

5. Write the word for each of the following abbreviated terms:

a. 10 Cal. per slice a. ______________________
b. 1 lb. sugar b. ______________________
c. Cook at 350° F. c. ______________________
d. 2 c. water d. ______________________
e. Beat for 10 min. e. ______________________
f. f.g. pepper f. ______________________
g. Let stand 20 sec. g. ______________________
h. 1 t. salt h. ______________________
i. 1 med. orange i. ______________________
j. 2 tbsp. chopped onion j. ______________________
k. 3 T. cornstarch k. ______________________
l. Bake for 1 hr. l. ______________________
m. 1 tsp. cinnamon m. ______________________
n. 4 T. M.S.G. n. ______________________
o. 1 lg. apple o. ______________________
p. 5 oz. coconut p. ______________________
q. Cool at room temp. q. ______________________
r. 1 sml. banana r. ______________________
s. Wt. of baked cake s. ______________________

6. Write the equivalent for the following measurements using the metric system:

a. 3 t. a. ____________________
b. 16 T. b. ____________________
c. 8 fl. oz. c. ____________________
d. 2 c. d. ____________________
e. pinch e. ____________________
f. 2 pt. f. ____________________
g. 4 qt. g. ____________________
h. 16 oz. h. ____________________
i. f.g. i. ____________________
j. spk. j. ____________________
k. ¼ c. k. ____________________
l. ½ c. l. ____________________
m. ¾ c. m. ____________________

7. Josie will help in the baking area this week. She has been asked to double the amount of ingredients in a cookie recipe for the baker. Show what amounts, using the largest equivalents, are needed of each ingredient after doubling the recipe.

____________________ a. 1 c. sugar
____________________ b. 1 c. margarine
____________________ c. 2 t. vanilla
____________________ d. 12 oz. flour
____________________ e. 2 T. cocoa

8. Lynn's work station for this week is in the serving area. One of his tasks on the work sheet is to prepare 1¼ gal. fruit punch. The recipe he is using makes 2½ gal. punch. Show how he will adjust the measurements to fit his task (use largest equivalent).

____________________ a. 4½ c. sugar
____________________ b. 3 c. water
____________________ c. 2-6 oz. cans orange juice, frozen
____________________ d. 2-6 oz. cans lemon juice, frozen
____________________ e. 1 gal. water makes 2½ gal. punch

9. One of the tasks on Mark's work sheet today is to measure ingredients for apple crisp. A red-penciled note attached to the recipe said "make 3 X the recipe." Complete the blanks to show the largest equivalent measurement he should use when he triples the recipe.

____________________ a. 10 lb. sliced apples
____________________ b. 8 oz. sugar
____________________ c. ¼ c. lemon juice
____________________ d. 1 lb. 4 oz. margarine
____________________ e. 12 oz. flour
____________________ f. 12 oz. rolled oats, uncooked
____________________ g. 2 lb. brown sugar

10. Ann is preparing a salad for general diets using the ingredients listed below. Convert the amounts called for in the recipe into the largest equivalent to speed up the measuring process.

________________ a. 4 qt. lettuce
________________ b. 2 pts. tomatoes
________________ c. 2 c. celery
________________ d. 2 c. radishes
________________ e. 16 T. oil
________________ f. 8 oz. vinegar
________________ g. 3 t. sugar
________________ h. 3 t. paprika

11. Joe is helping the chef by measuring the ingredients for a cheese sauce. Figure the amounts, to the largest equivalents, that he will use:

________________ a. 4 pts. milk
________________ b. 8 T. fat
________________ c. 8 T. flour
________________ d. 3 t. salt
________________ e. 24 oz. grated cheese

In Items 12-30, write the abbreviations for each word that is in italics in the following recipes. Write an acceptable abbreviation of the word in italics in the blank to the left of the amounts.

Chili Con Carne (for 50)

	Amount	*Ingredient*
________12.	3 *pounds*	Beans, kidney
________13.	1 *gallon*	Water, boiling
		ADD
________14.	9 *pounds*	Beef, ground
________15.	8 *ounces*	Onion, chopped
		ADD
________16.	1½ *quart*	Tomato purée
________17.	2 *ounces*	Chili powder
________18.	3-4 *ounces*	Cumin seed, ground
________19.	3 *tablespoons*	Salt
________20.		Water to make a total volume of 3 *gallons*
________21.		Let simmer about 3 *hours*
		ADD, while stirring
________22.	5 *ounces*	Flour
________23.	2 *cups*	Water, cold

Fudge

	Amount	*Ingredient*
______24.	2 *cups*	Sugar
______25.	2/3 *cup*	Milk
______26.	1½ *tablespoons*	Light corn syrup
______27.	2 *squares*	Chocolate
______28.	*few grains*	Salt
______29.	3 *tablespoons*	Butter
______30.	1 *teaspoon*	Vanilla extract

In Items 31-40, match the term to the appropriate definition. Place the letter of the term in the blank to the left of each definition.

Definitions

______31. to spoon liquid over food as it cooks

______32. to strip off the outside covering by hand

______33. to mix food materials with a circular motion

______34. to force cooked foods through a strainer to make a smooth, thick pulp

______35. dishes prepared with a white sauce, bread crumbs, and cheese, then baked for a short period

______36. to liquefy by heat

______37. to lessen the strength, thickness, or flavor of a mixture, usually by adding water

______38. to cook in steam with or without pressure

______39. to cook in a hot liquid, being careful to retain the shape of the food

______40. to separate into fine particles with a sieve

______41. to add a decoration to a food to make it more attractive

______42. to pulverize by pressing and working with a wire or flat-headed device

Terms

a. Au gratin
b. Bake
c. Baste
d. Bread
e. Dilute
f. Garnish
g. Mash
h. Melt
i. Peel
j. Poach
k. Purée
l. Sear
m. Sift
n. Stir
o. Steam

In Items 43-50, match the standard substitutions to the ingredients being substituted. Place the letter of the substitution in the blank to the left of each ingredient.

Ingredients	*Substitutions*
______43. 1 T. cornstarch	a. 1-1¼ c. sugar plus ¼ c. liquid b. 2 T. flour
______44. 1 sq. chocolate	c. ¼ tsp. soda plus ½ t. cream of tartar
______45. 1 c. sour milk	d. 7/8 c. all-purpose flour e. 3 T. cocoa plus 1 T. fat
______46. 1 c. butter	f. 2 egg yolks g. 7/8 c. fat plus ½ t. salt
______47. 1 c. honey	h. 1 c. fresh milk plus 1 T. vinegar or lemon juice
______48. 1 t. baking powder	
______49. 1 whole egg	
______50. 1 c. cake flour	

ASSIGNMENTS:

I. Prepare a "Word-a-gram" using the terms used in food preparation. For the "Word-a-gram" choose one of the following topics: (a) meats; (b) salads, vegetables, and fruits; (c) surface cooking; or (d) baking and pastry. Try to use all of the terms in the group you choose. Here is an example using the months of the year.

```
          J                         M A R C H
    J A N U A R Y         N           P
      U   N               O C T O B E R
      G   E     F         V           I
      U       D E C E M B E R         L
      S         B         M
S E P T E M B E R         B
          A     U         E
          Y     A         R
                R
          J U L Y
```

II. Without referring to the word lists, work the crossword puzzles on food preparation terms on pp. 244-247 to test your understanding of food preparation and terminology. (Answers are on pp. 532-535 in the teacher's edition.)

III. Ask the supervisor at your training station to demonstrate any terms you do not understand.

GROUP WORK:

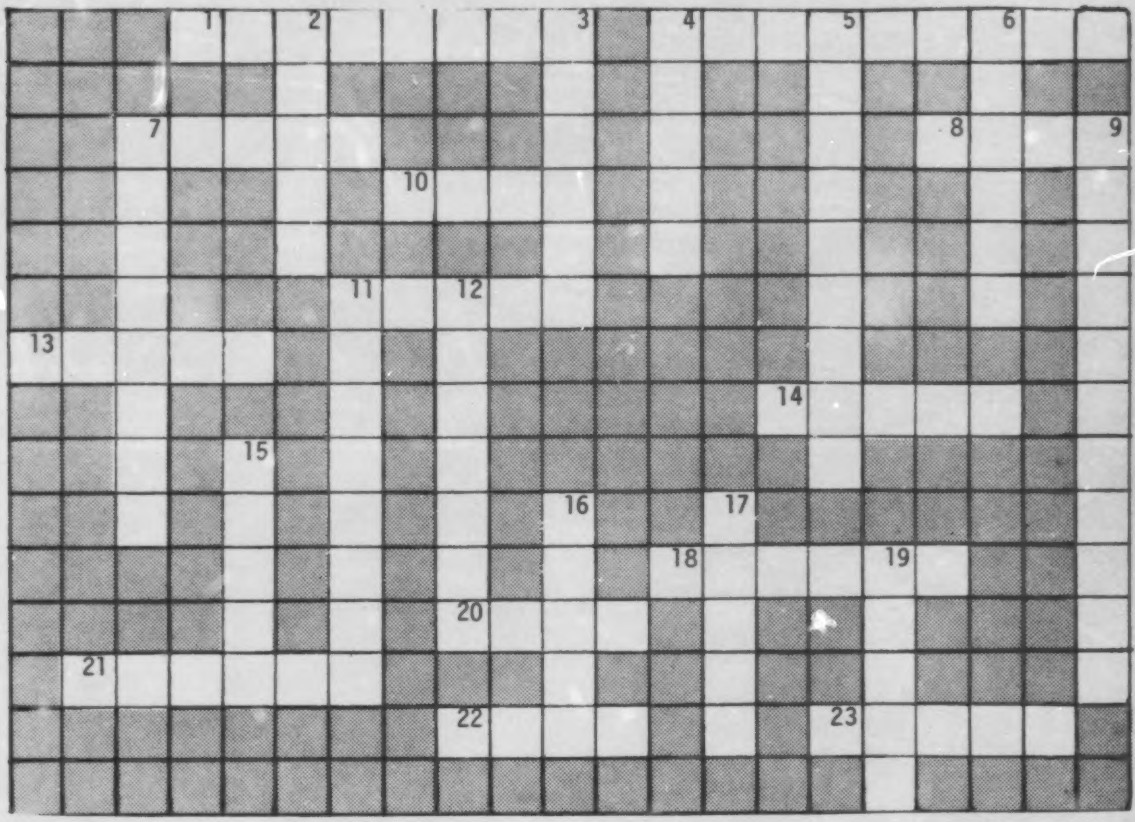
I. Divide into two teams to play "Cooking Charades." Place cooking terms on individual sheets of paper in a container. Each team takes turns acting out a cooking term which is drawn from the container. The team identifying the most terms is the winner.

II. Study the list of common measures and abbreviations used in food preparation. Divide into two teams to play "Jeopardy." Place a small bell on a desk. The leaders calls out answers about the measures and abbreviations. The first, second, etc., person in line must run up, ring the bell, and give the answer in the form of a question. Example: Leader says, "May be written as T., tb., or tbsp." Student would say, "What is the abbreviation for tablespoon?" Student may confer with team members before ringing the bell, but the student must answer immediately after ringing the bell. Leader should repeat questions for reinforcement.

III. Compare techniques used at your different training stations. Are any of the terms mentioned in this chapter interpreted differently? What are the differences?

CROSSWORD PUZZLES FOR TERMS USED IN FOOD PREPARATION

A. MEATS CROSSWORD PUZZLE



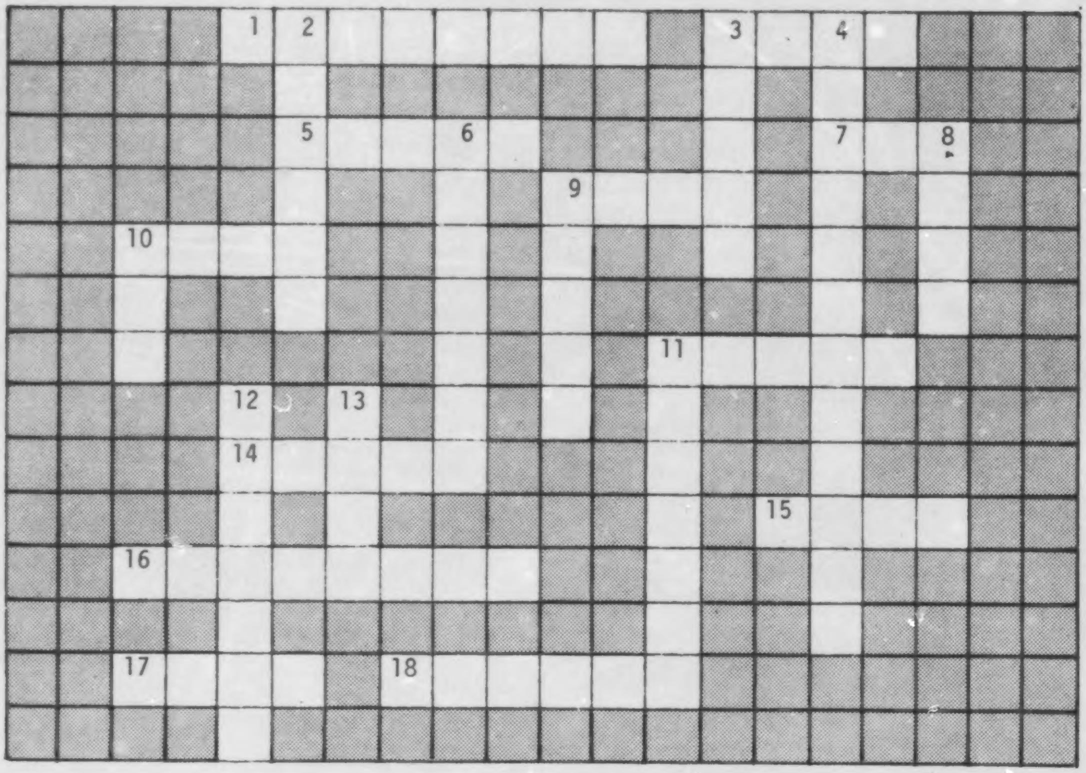
ACROSS:

1. To let food stand in a marinade
4. To cook by braising (fowl, rabbit, veal)
7. To roll in bread crumbs
8. Any form of pork fat
10. To brown surface of meat
11. To spoon liquid over food as it cooks
13. To separate raw meat from bone
14. To pack a mixture into a cavity
18. To cook slowly in a covered utensil
20. Mixture of fat and browned flour
21. To coat with flour or other substance
22. To cut into squares about ½ inch in size
23. To secure the wings and legs of a bird with pins or twine

DOWN:

2. To bake uncovered
3. Food dish served as the main course
4. To break into small bits by using a fork
5. Meat, etc., shaped into cones, breaded, and fried or baked
6. To improve flavor by adding salt, pepper, or spices
7. Clear broth from meat or vegetable juices
9. To dip in a smooth mixture of flour and liquid, for example
11. To cook by a direct heat source
12. To cover with sauce or vegetables
15. To reduce to particles by cutting or crushing
16. To coat or top with crumbs
17. To cook by exposure to direct heat
19. To make thin parallel cuts in one or more directions on food surface

B. SALADS, VEGETABLES, AND FRUITS CROSSWORD PUZZLE



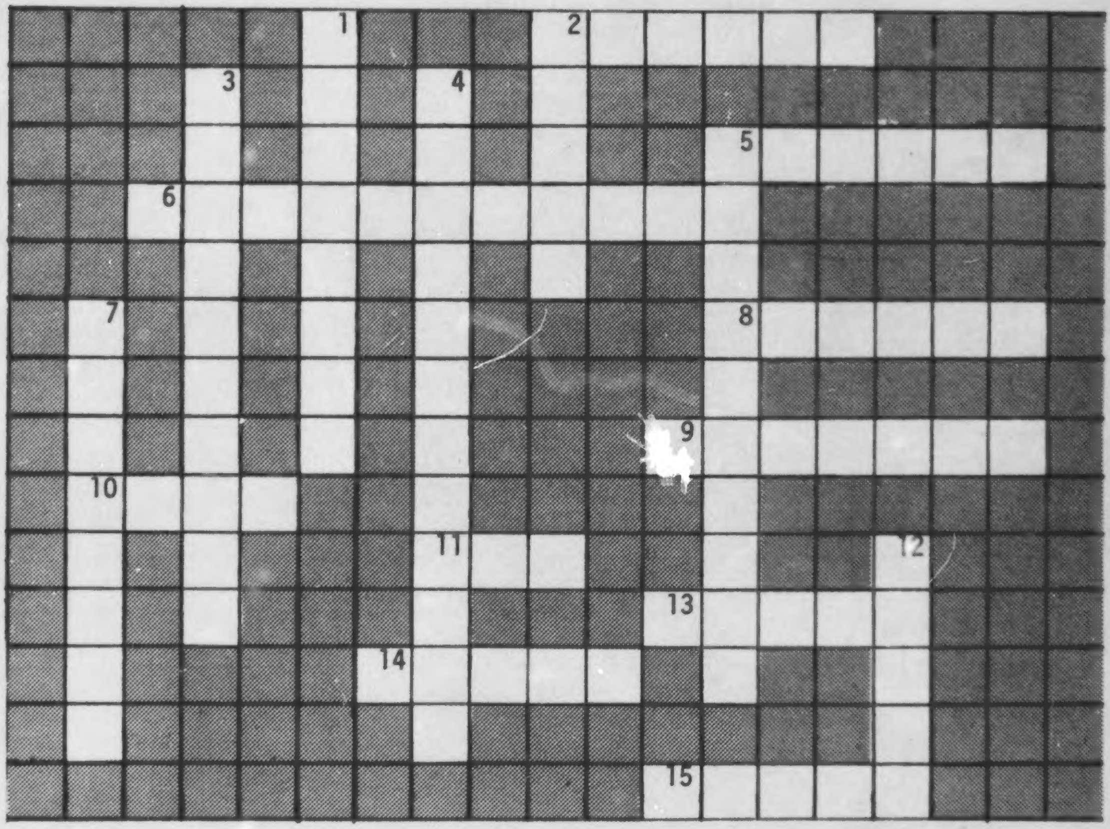
ACROSS:

1. Dishes prepared with a sauce, etc., then baked
3. To cut off outside covering with a knife or other utensil
5. To cut or chop into very small pieces
7. To divide food into small pieces
9. To remove the core or center of fruit
10. To strip the outside covering by hand
11. To form flakes using a grater
14. To place in refrigerator until cooled to 40° - 45° F. (4.4° - 7.2° C.)
15. To remove the stem and cap from berries
16. To cut foods into the size and shape of matchsticks
17. To cut into pieces with sharp knife or other tool
18. To dip into boiling water so as to remove skins or precook

DOWN:

2. To loosen and remove from a container
3. To force cooked foods through a strainer
4. To restore concentrated foods to their normal state
6. To cause foods to become thick by lowering the temperature
8. To bring to a temperature above freezing
9. To cook in a heavy syrup or sugar
10. To remove the stone or seeds from fruit
11. To add a decoration to food to make it more attractive
12. Layers of thinly sliced food and seasonings covered with a liquid and baked
13. To cut into small cubes

C. SURFACE COOKING CROSSWORD PUZZLE



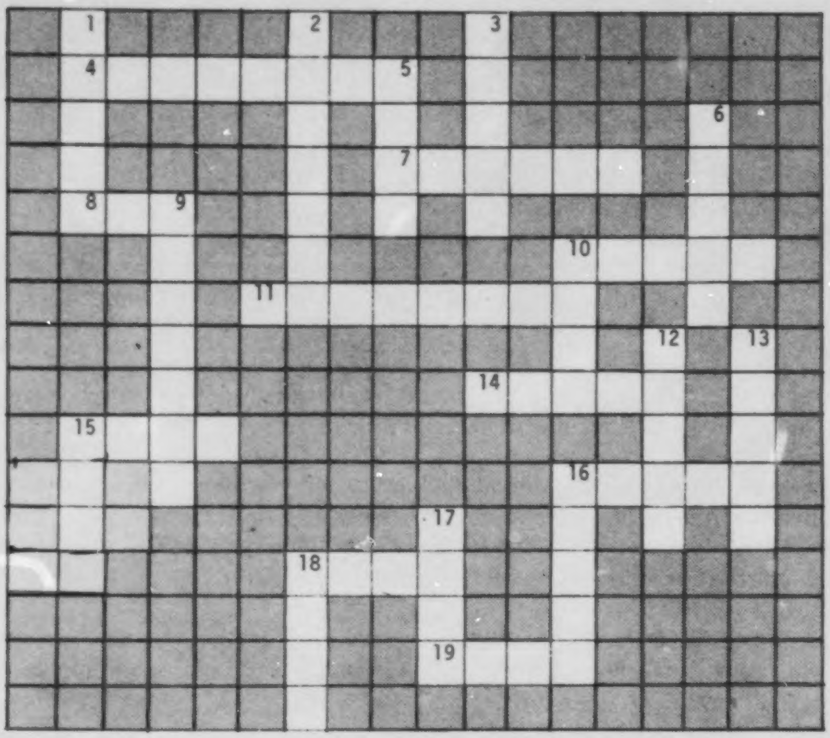
ACROSS:

2. To cook in a liquid at a temperature of about 185° F. (85° C.)
5. To lessen the strength of a mixture
6. To cause to form crystals
8. To cook in a small amount of fat
9. To boil until partially cooked
10. To cook in water or other liquid
11. To cook a vegetable in a tightly covered skillet in a small amount of fat
13. To fry, saute, or toast on a solid, heated surface
14. To cook in a hot liquid, being careful to retain shape
15. To brown quickly in a small amount of fat

DOWN:

1. To combine or mix a solid with a liquid until a solution is formed
2. To heat to a temperature just below the boiling point
3. To heat sugar, or foods containing sugar, until brown
4. To coat a metal spoon with a film of thickened sauce
5. To cook in deep fat
7. To cook uncovered on a hot, ungreased surface
12. To coat with a thin sugar syrup cooked to the cracking stage

D. BAKING AND PASTRY CROSSWORD PUZZLE



ACROSS:

4. To remove excess dry ingredient from a measuring cup or spoon
7. To make light by an agent
8. To cover with small particles
10. To spread melted fat with a pastry brush
11. A mixture of stiffly beaten egg whites and sugar
14. To cut fat into small particles in dry ingredients
15. To mix, knead, or press into required shape or consistency
16. Filled a little less than a full measure
18. To separate into fine particles with a sieve
19. To beat ingredients rapidly so as to incorporate air and increase volume

DOWN:

1. To mix two or more ingredients thoroughly
2. A very light baked dish
3. To beat one or more foods until smooth and creamy
5. To mix by cutting vertically through ingredients and by turning them over
6. To brown with dry heat
9. A drum-shaped pastry mold filled with a creamy mixture of meat, vegetables, and eggs
10. To mix until smooth, using an up-and-over motion
12. To press, fold, and stretch a dough
13. To make an edge with a scalloped effect
15. To combine ingredients
16. To let stand in liquid below the boiling point
17. To simmer in a small quantity of liquid
18. To mix food ingredients with a circular motion

UNIT VIII-3

TECHNIQUES OF FOOD PREPARATION

SUBJECT: Convenience Foods

TASK: 18. Read recipes, know terminology, and follow directions.

OBJECTIVES: When you finish this lesson, you should be able to
a. identify convenience foods
b. list reasons for using convenience foods

REFERENCE: Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett, Co., Inc., 1979. p. 96.

Food service and health care establishments are using more convenience foods today than ever before. The increased use of convenience foods is due to:

1. an increase in "eating out" and the public's desire for new dining experiences.
2. technological advances in refrigeration, processing, and packaging.
3. a shortage of trained personnel due to the lack of culinary schools in the U.S. and the reduced immigration of trained personnel from other countries.

Dietary kitchens and food service establishments vary greatly in the type and number of convenience foods used. Some serve many convenience foods, some use only convenience entrées, and others use only a few convenience ingredients.

A *convenience food* can be defined as any food which is prepared in some way, such as fresh vegetables which have been washed. However, most foods we think of as convenience foods are those which require little preparation at serving time because they have been pre-prepared by someone else. Convenience foods are available in several forms: fresh, frozen, freeze-dried, dehydrated, and canned. Some examples of convenience foods include: pre-cut portions of fish, meats, and poultry (uncooked or partially cooked); frozen or canned fruits and vegetables; and cleaned and packaged fresh, chopped, or shredded, peeled and cut fruit for use in salads, desserts, or as garnishes. Other examples of convenience foods are cake and other baked-product mixes, soups, gravy and sauce bases, and packaged individual portions of condiments and beverages.

Convenience foods are not new; in fact, some have been used for many years. Sausage, gelatins, and packaged pudding mixes are among the oldest convenience foods. Instant potatoes are one convenience product that has been accepted by a majority of food service and health care establishments. Instant potatoes come in flakes or granules and have a natural flavor, a white color, and the mealy (not sticky) texture of a natural product. In addition to saving time and energy during preparation, instant potatoes offer the advantage of requiring less storage space. Three cases of No. 10 cans are equal to about 900 pounds of raw potatoes and require only one-eighth of the storage space. Having the potatoes in easy-to-handle cases and boxes instead of bins makes inventory simpler. Instant potatoes have many uses as ingredients for soups; as thickening in gravies and sauces; as an ingredient in batters for coating vegetables and meats before deep-frying; and as an ingredient in muffins and biscuits, stews and casseroles, salads, cakes, and confections.

Recent innovations have made gelatins and puddings even more convenient. Gelatin has traditionally been prepared from a base of animal protein, but the new gelatins are made with a base called *carragenan.* Carragenan is a vegetable protein derived from marine plant life. The gelatins made from this new base product set in 15 minutes *without* refrigeration. Set gelatin stands at room temperature without becoming rubbery or melting. Fruits and vegetables may be added within a matter of minutes. A molded gelatin "pops" right out of the mold without using hot water. Additional convenience in puddings has been achieved through canning. Canned puddings are spooned directly into dessert dishes for serving.

The quality of some convenience foods is higher than that of regularly prepared foods. The convenience foods are processed when the nutritive value of the food is at its peak. They are processed rapidly to retain nutrients and are either canned or quick-frozen immediately. Fresh foods may incur a high loss of nutritive value as they pass through the various steps in marketing. The convenience foods also have a more consistent quality due to the rigid standards under which they are processed.

Today a variety of convenience foods are available, including entrées, soups, sauces, vegetables, fruits, salads, and desserts. Menus which use convenience foods are limited only by the imagination of the menu developer. For instance, the menu selection for entrées in a restaurant might include:

Mushroom Gravy and Sirloin Tips
Meat Loaf with Tomato Sauce
Ham Steak with Pineapple Sauce
Chicken in Curry Sauce
Roast Boned Duckling à l'Orange
Lobster in Hollandaise Sauce
Shrimp Creole with Buttered Rice

The entrees for the main meal of the day in a health care establishment might include:

Salisbury Steak with Mushroom Gravy
Meat Loaf with Tomato Sauce
Ham Steak with Pineapple Sauce
Chicken Fricassee

New equipment which speeds the preparation of convenience foods includes:

1. microwave or electronic ovens, which cook in minutes the same food that requires hours in a regular oven.
2. reconstituting ovens (combination freezers and ovens), which are capable of storing up to 360 pounds of frozen foods at 0° F. (-17.8° C.) and then heating the food to 165° F. (73.8° C.) in 55 minutes.

The labor shortage has created a demand for more and more convenience foods in order to meet the demands of a steadily increasing business. The cost of buying convenience foods is usually higher than the cost of regularly prepared foods. However, the labor cost is lower, sometimes as much as 20 to 25 percent. Space requirements for food preparation may be reduced from 5 to 20 percent. The preparation equipment needed may be as much as 20 percent less. These reductions more than offset the higher cost of buying the convenience foods. Further savings occur because waste is almost entirely eliminated. There is less left-over food and less waste in cleaning and portioning foods. Another advantage is that portion sizes can be standardized and the cost per portion more accurately determined.

This modern approach to food preparation allows management to put to use the talents of young, inexperienced employees who may be working their way through school, or perhaps of adults who want to work only part-time. Employees working with convenience foods need the ability to add seasonings and spices to convenience foods, and to plate and garnish foods attractively.

QUESTIONS:

1. What is a convenience food?

2. List five examples of convenience foods.
   a.
   b.
   c.
   d.
   e.

3. What are four processes used to preserve convenience foods?
   a.
   b.
   c.
   d.

4. A food service operation that uses *only* convenience foods is called a(n)
   _____ a. fast food business.
   _____ b. convenience food flow system.
   _____ c. vending self-service system.
   _____ d. automated food system.

5. One of the factors leading to the greater use of convenience foods is a shortage of
   _____ a. regular food.
   _____ b. equipment.
   _____ c. personnel.
   _____ d. business.

6. The use of convenience foods provides all of the following *except*
   _____ a. a reduction in preparation time and labor.
   _____ b. a reduction in amount of "left-over" food.
   _____ c. a lower priced food item.
   _____ d. more standardization in size or portions.

7. The quick-setting quality of the vegetable protein gelatins is a major advantage over the traditional animal protein-based product. The new gelatin can be expected to set in
   _____ a. 20 minutes.
   _____ b. 15 minutes.
   _____ c. 10 minutes.
   _____ d. 7 minutes.

8. The higher cost of convenience foods is offset by reductions in all but the amount of
   _____ a. space needed.
   _____ b. equipment needed.
   _____ c. labor needed.
   _____ d. food needed.

9. The quality of convenience foods may be higher than that of regular foods because convenience foods are
   _____ a. processed at the peak of nutritive value.
   _____ b. prepared in small amounts.
   _____ c. processed in large quantities.
   _____ d. prepared in the maximum amount of time.

10. The consistency of quality in convenience foods is due to quality control standards used during
    _____ a. cooking.
    _____ b. preparation.
    _____ c. processing.
    _____ d. serving.

11. A reconstituting oven is an appliance used in preparing convenience foods. It is a combination
    _____ a. refrigerator and oven.
    _____ b. freezer and oven.
    _____ c. cold storage and food warmer.
    _____ d. food warmer and defroster.

12. Using instant potatoes offers all *except* one of the following advantages:
    _____ a. Requires less time and energy for preparation
    _____ b. Requires less storage space
    _____ c. Requires no inventory
    _____ d. Requires no peeling

ASSIGNMENT:

1. List the convenience foods used at your training station and describe the various ways in which they are used.

GROUP WORK:

1. Share the lists you made in the above assignment with other food service employees. Compare and contrast the use of convenience foods in each of the health care or food service establishments in which you are employed.

UNIT VIII-4

TECHNIQUES OF FOOD PREPARATION

SUBJECT: Techniques of Portioning Food

TASK: 19. Portion foods accurately during food preparation.

OBJECTIVES: When you finish this lesson, you should be able to
a. cite reasons for portioning food
b. list methods used to portion foods for serving.

REFERENCE: Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. p. 112.

The management or dietitian in the food service operation determines the appropriate *portion size* or the amount of food to be served to guests and patients. This decision is influenced by the type of meals, food choices, serving methods, kinds of customers, dietary needs, and cost of food and supplies. A restaurant which caters to truck drivers may serve larger portions than a tearoom which attracts shoppers with small appetites. As a rule, hospital portions are determined by the dietary needs of the patient.

Establishing the size of a portion:

1. enables food service personnel to request correct amounts of food and supplies without overstocking.

2. helps make possible the serving of freshly prepared food daily, thus preventing the necessity of serving or planning the use of leftovers.

3. cuts down on waste and loss of food nutrients by ensuring adequate but not overly large servings, thereby reducing food cost.

4. prevents underproduction as well as overproduction of food to be served by using standard yields, recipes, and purchases.

5. simplifies food preparation.

6. satisfies the guests' food expectations by ensuring that the same amount of food is served each time an order is filled.

7. helps provide attractive and uniform servings. Many institutions purchase foods which have been pre-shaped or cut into standard sizes. The most common ones are for the protein portion of the meal, such as meat loaf or chicken and dressing.

8. assists in establishing a cost control system.

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Regardless of the size, the portion should appear ample without looking too standardized. One may accomplish this by selecting the proper size and color of plate. A large amount of food on a small plate may appear sloppy. A small amount of food on a large plate appears inadequate. The appearance of food can be improved with the addition of a colorful garnish.

The selection and use of the proper equipment for portioning foods makes the task easier. Food service employees or dietary aides should become familiar with the established list of portion sizes used in their training stations. The list includes portions per pound, piece, slice, package, or count volume. Examples are: ¼ lb. hamburger, 2 pieces chicken, 1 slice ham, 1 pkg. salt, and 1 med. orange per serving or portion. The employee or aide should learn the size dish or plate on which foods are to be served and the equipment that is required for serving specified foods.

Pre-portioning certain foods assures serving the correct amount during the busy period. Some foods are portioned before cooking, some after. Accuracy in pre-portioning is made possible by using prepackaged foods and the following equipment.

1. Standard size pans which permit food to be cut into the number of servings indicated in the recipe. The use of a stainless steel ruler or marked pans ensures accurate portions. Examples: brownies, gelatin salad, cake.

2. Standard scoops, ladles, dippers, spoons, and tongs in various sizes for specific foods. Examples: mashed potatoes, ice cream, gravy, sandwich fillings, some salads and desserts, meatballs.

3. Individual, correctly-sized casseroles, molds, custard cups, soufflé cups, and other dishes. Examples: macaroni and cheese casserole, baked custard, gelatin salads.

4. Standardized scales for weighing portions. Examples: meat, yeast breads, cake batter, special diet foods for patients.

5. Slicing machines or slicers which give portions of the correct size for breads, vegetables, and meats. Cutters, slicers, and markers are used also for butter, cheese, and pie.

6. Individual size cream pitchers, and individual pots or vacuum containers for hot beverages.

7. Prepackaged portions of sugar, ketchup, mayonnaise, salt, pepper, crackers, cereal, milk, ice cream, and other goods.

8. Meats purchased in slices and served or cut into the desired number of uniform servings. Examples: pre-portioned hamburger patties, Salisbury steak.

If serving food is one of your tasks, make the serving the exact size specified by your supervisor. The attitude of employees toward food portioning can "make or break" a food service establishment. Serving extra food or failure to use the size dipper or ladle specified for the food can cost the food service or health care establishment many dollars and result in decreased profits. It can result in the loss of customers in food service establishments and may be harmful to the patient in health care establishments. Indifference toward your role in keeping costs down will probably cost you your job.

QUESTIONS:

1. Portioned servings are necessary for an efficient, economical food service or health care operation. Factors used to determine portion sizes and amounts are:
   a.
   b.
   c.
   d.
   e.

2. Management studies in food service and health care operations consistently stress the importance of serving portioned food. What are five possible results of not serving portioned foods?
   a.
   b.
   c.
   d.
   e.

3. What can be done to make predetermined portions look appetizing when served?
   a.
   b.

4. Name five prepackaged items that may be used in serving customers or patients.
   a.
   b.
   c.
   d.
   e.

5. Portion control means ____.

6. The amount of the portion of food to be served is decided by the ____________________ ____________________.

In Items 7-12, match the food item to the pre-portioning equipment associated with it. Place the letter of the food item in the blank to the left of the equipment.

Pre-Portioning Equipment

_____ 7. Standard size pan

_____ 8. Standard scoop, dipper

_____ 9. Individual baking dish

_____10. Standard scales

_____11. Standard slicer

_____12. Prepackaged portions

Food Item

a. Bread
b. Cereal
c. Gelatin salad
d. Ice cream
e. Macaroni and cheese casserole
f. Meat

ASSIGNMENT:

I. List and explain food portioning techniques which are used at your training station.

GROUP WORK:

I. Share the food portioning techniques used at your training station with class members. Discuss the advantage of each food portioning technique.

UNIT VIII-5

TECHNIQUES OF FOOD PREPARATION

SUBJECT: Work Simplification and Work Schedules

TASK: 20. Plan work schedule so foods are ready at serving time.

OBJECTIVES: When you finish this lesson, you should be able to
a. define the purpose and need for work simplification
b. apply motion economy principles to job performance.

REFERENCE: Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 258-275.

The increased minimum wage is making it necessary for managers of health care and food service establishments to look for ways to improve the efficiency of their operations. Each employee must perform a day's work for a day's pay if the food service or health care establishment is to operate within its budget. One cause of inefficient operation is employee fatigue, which results in a drop of energy, enthusiasm, and output.

There are two types of fatigue: physical and mental. *Physical fatigue* results from muscular exertion. *Mental fatigue* is a slowing down of nerve impulses. Employees feel tired although they are not physically tired. Fatigue may be due to factors in the employee's personal life, such as lack of sleep, problems at home, or poor diet. In many cases fatigue may be due to working conditions or procedures on the job.

One method of reducing employee fatigue is *work simplification.* Work simplification has been defined as "seeking the simplest, easiest, and quickest method of doing work." This does not mean that the employee must work harder and faster, but that the nonessential parts of the operation are eliminated. Every task is divided into: (1) getting ready–setting up equipment, (2) doing–actual production, and (3) putting away–cleaning up and putting away.

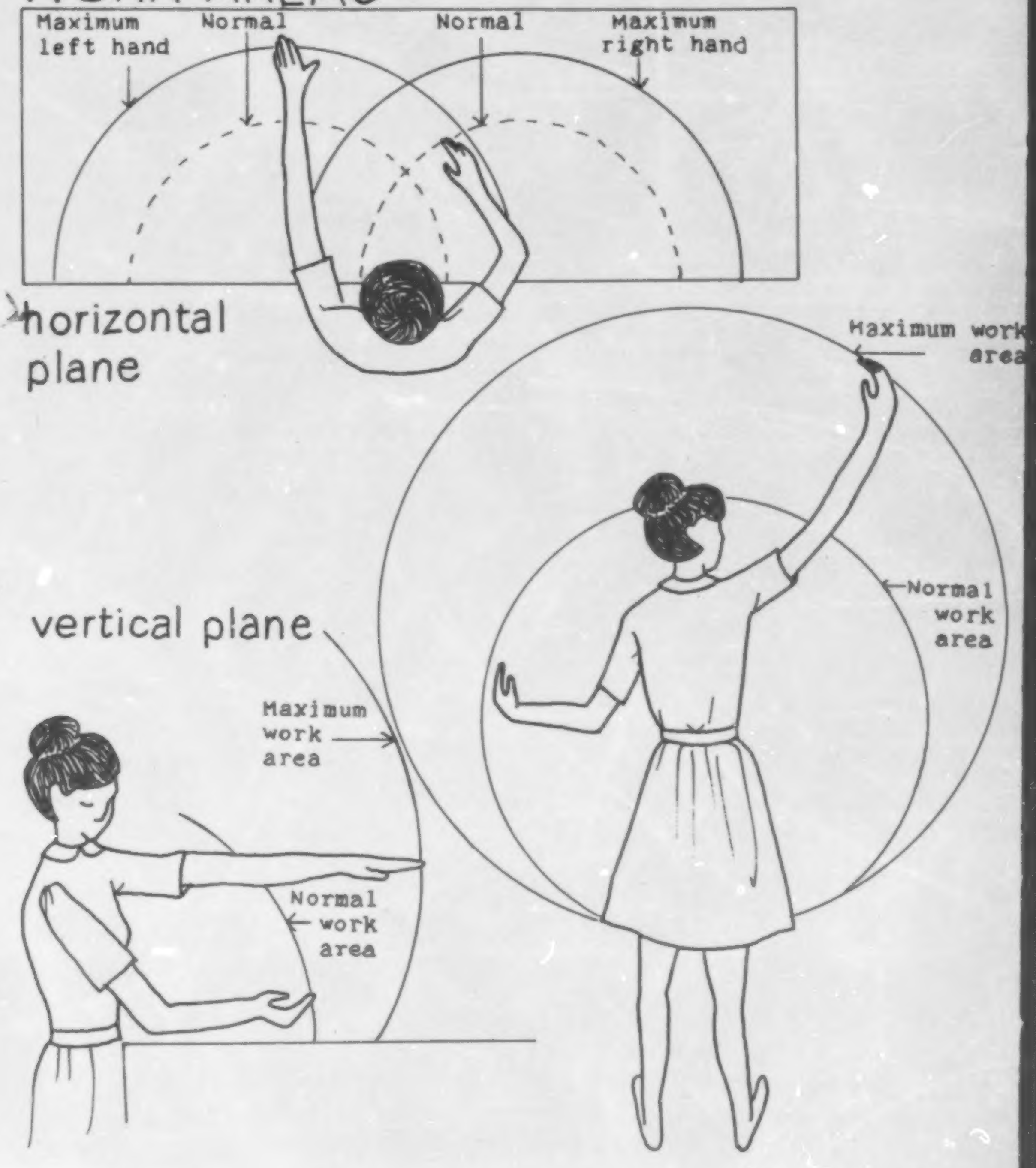
Some general work simplification guides to follow for reducing fatigue and increasing efficiency are:

1. Plan ahead–think through all the steps in the task before beginning.
2. Eliminate unnecessary steps or movements.
3. Assemble all supplies before beginning work.
4. Select the best tools for the job.
5. Keep your mind on your work.
6. Maintain good posture.
7. Clean up as you work.

RULES FOR MOTION ECONOMY

	Rule		*Example*
1.	Use hands in unison or move arms at same time.	1.	When placing a carton of milk and an empty glass on a tray, reach for the carton with the left hand and for the glass with the right hand.
2.	Move arms simultaneously in opposite and symmetrical directions.	2.	When preparing a tray of salad plates, hold plate in left hand and put lettuce on plate with right hand, etc.; when counter space is limited, both hands are involved by using left hand to bring food close to area for the right hand.
3.	Use natural rhythm with continuous, curved motions.	3.	When washing a table top, surface of refrigerator, etc., use continuous, curved movements and avoid using straight-line movements that stop and start.
4.	Use the smallest part of the body that produces the best results.	4.	Use the touch of a finger to start the garbage disposer.
5.	Use motions that are easiest for the worker.	5.	A right-handed person prefers to work with the right hand, arm, and the first and second fingers; a left-handed person prefers to work with the left hand, arm, and first and second fingers.
6.	Use tools or equipment to free hands and fingers.	6.	Use trip device on coffee urn spigot to free hands to hold cup and saucer.
7.	Use gravity to do work.	7.	Chop food item on board near edge of sink and let the chopped pieces fall into a container in the sink.
8.	Arrange tools, equipment, and supplies within normal reach area.	8.	Place tools, equipment, and supplies neatly and in the normal reach area to avoid searching for needed equipment.
9.	Follow sequence of proper motion through location of tools and supplies.	9.	Arrange tools, equipment, and supplies in proper order for sequential use within normal reach area.
10.	Work at a comfortable height.	10.	Work surface should be 2 to 4 inches below the worker's elbow when worker is using a small hand tool, such as a paring knife or a pastry tube.

NORMAL AND MAXIMUM WORK AREAS


Maximum left hand
Normal
Normal
Maximum right hand
horizontal plane
Maximum work area
Normal work area
vertical plane
Maximum work area
Normal work area

Let's follow Susie while she carries out one of her jobs to see how motion-conscious she is. She reads on the work schedule that she is to prepare the salad for the noon meal. The first item on the recipe card is lettuce, so she goes to the walk-in refrigerator, gets four heads of lettuce, takes them to the sink, and then returns to get four more heads of lettuce. The procedure she follows to remove the cores is to bend over the sink, pick up the lettuce in her right hand, transfer it to her left hand, pick up the knife, remove the core with her right hand, and put the head of lettuce on the drainboard.

Next Susie carries the lettuce, two or three heads at a time, to the salad area. After tearing the lettuce leaves into bite-size pieces, she looks at the recipe again. Carrots are listed as the next ingredient. Susie goes back to the walk-in refrigerator, picks up the carrots, and walks to the sink. She then goes over to the drawer to get a French knife to peel the carrots and then slices them, one at a time, holding the carrots in her hands.

The next ingredient is celery. After going to the walk-in for the celery and carrying it to the sink to mince it, she goes back to the drawer to get a paring knife to cut the celery into small pieces. She cuts one stalk of celery at a time and then picks up the pieces and puts them in the salad container.

What rules of work simplification and motion economy did Susie break? Refer to the information in this unit and see if you can catch her mistakes.

Were these the mistakes you found?

1. Susie wasted many steps collecting the ingredients and tools for the salad. If she had read the recipe carefully, she could have taken a tray or large container to the refrigerator and picked up all the items in one trip. She could have made only one trip to the drawer for knives if she had planned ahead. She needs to learn to "eliminate unnecessary steps" and to "assemble all supplies and equipment before beginning to work."

2. Susie violated Rule 1, "use hands in unison," when she changed hands so often while coring the lettuce.

3. Bending over the sink instead of putting the lettuce on a more comfortable working height was a violation of Rule 10, "work at a comfortable height."

4. The use of a French knife to peel the carrots and her failure to put the carrots down on a cutting surface when slicing them was a violation of Rule 5, "use motions easiest for the worker." Using a French knife for peeling would be awkward and tiring. It was not the best tool for the job.

5. Use of a paring knife, instead of a French knife, to chop celery was another violation of Rule 5 and another poor choice of equipment. Susie also could have used Rule 7, "use gravity to do work," if she had chopped the celery on a board near the edge of the counter and then pushed it into the salad container.

Susie's situation is exaggerated, but many workers waste motions without being aware that there is an easier, quicker way to do things. Think about the way you carry out your duties. Don't be an employee like Susie–make every motion count and you will not be so tired at the end of the work period.

QUESTIONS:

1. Name five things which food service workers need to manage.
   a.
   b.
   c.
   d.
   e.

2. What does "work smarter, not harder" mean?

3. What is the result of using the rules of motion economy?

4. What are the three parts of every job?
   a.
   b.
   c.

5. When Mr. Robinson talked with Tom about his job as a food service employee, he discussed the two types of planning that are used to obtain good worker productivity. What are they?
   a.
   b.

6. Mrs. Mayes, the assistant cook, was explaining Lucy's tasks as a cook's helper. She said, "Work simplification is one of the most valuable skills you can learn and apply to your job." What are the steps of work simplification?
   a.
   b.
   c.

7. At one of the meetings for new employees, Joe heard an industrial engineer say, "One of the big enemies of production is fatigue." Then the industrial engineer discussed the two types of fatigue which all workers experience. What are they?
   a.
   b.

8. Today, Donald has been assigned to help prepare salads. The salads are a chef's salad, a gelatin salad, cabbage slaw, and potato salad. They should be completed and ready to serve in four hours. Which salad should be prepared first? Why? Which salad should probably be made second?

In Items 9-13, which rule of motion economy could be used by the food service or health care employee to perform the following tasks most efficiently? List the number of the rule from p. in the blank to the left of the statement, and briefly describe the rule on the line below the statement.

9. Arrange lettuce and peach halves on salad plates.

10. Start garbage disposer.

11. Wash surface of a refrigerator.

12. Chop ingredients for a salad.

13. Make sandwiches.

In Items 14-24, match each item to its definition. Place the letter of the item in the blank to the left of its definition.

Definitions

______14. Deciding on certain steps that need to be taken to reach the goal
______15. Means such as food, equipment, and money
______16. An aim which can be reached in a short time
______17. The process of planning and organizing to reach a definite goal
______18. Means such as energy, knowledge, attitudes, skills, talents, and personal habits
______19. Efforts made to follow a plan in order to reach a goal
______20. Making work easier to do in a shorter period of time
______21. An aim which takes a long time to reach
______22. Means available for carrying out daily activities
______23. Arranging the order of the steps in reaching a goal so that your plan can work out as well as possible
______24. Examining the results of a plan

Terms

a. Control
b. Evaluation
c. Human resources
d. Long-term goal
e. Management
f. Material resources
g. Organization
h. Planning
i. Resources
j. Short-term goal
k. Work simplification

In Items 25-31, place an X in the correct blank to indicate whether each statement is True or False.

25. A plan for work will help you accomplish more.
    ______ a. True
    ______ b. False

26. Each job can be simplified.
    ______ a. True
    ______ b. False

27. One should work at top speed in order to get more done.
    ______ a. True
    ______ b. False

28. Posture does not affect the use of energy in any activity.
    ______ a. True
    ______ b. False

29. Job training is not necessary; anyone can do food service work.
    ______ a. True
    ______ b. False

30. Fatigue is an enemy of production.
    ______ a. True
    ______ b. False

31. Work simplification is the study of tasks and operations to determine the most efficient method of performance.
    ______ a. True
    ______ b. False

ASSIGNMENT:

I. Analyze one job you do at your training station. What rules of motion economy could you apply to the job? (Turn this assignment in to your teacher.)

GROUP WORK:

I. Working in small groups or pairs, choose one task that you perform daily at your training station. Analyze the way each of you performs this task. Study the methods used by each member of the group. Then using work simplification tasks, suggest ways to save time and energy while performing the task.

UNIT IX-1

COLD FOOD WORK STATION

SUBJECT: Beverages

TASKS:
21. Make beverages, such as coffee and tea, and place them in serving locations.
22. Follow standard procedures for preparing a variety of foods.
23. Evaluate the quality of foods prepared.

OBJECTIVES: When you finish this lesson, you should be able to
a. describe procedures for making beverages
b. identify characteristics of quality beverages.

REFERENCES: Lewis, Dora S.; Peckham, Gladys C.; and Hovey, Helen S. *Family Meals and Hospitality.* New York, New York: Macmillan Publishing Co., Inc., 1972. pp. 240-247.

Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 142-144.

COFFEE

Coffee is the most popular beverage in America. Coffee is served as an accompaniment to a meal either before the meal for breakfast, with the main course, with the dessert, or at the end of the meal. Coffee is enjoyed also as a special refreshment. Because coffee is a popular beverage and a sign of hospitality, food service and dietary employees need to understand and observe the principles for making a good cup of coffee.

The ability to make good coffee is simply a matter of using the right combination of equipment, cleaning the equipment properly, and measuring the water and coffee accurately. Coffee should be served hot and fresh. It should be sparkling clear and have a pleasing taste and aroma.

Underbrewing causes the coffee to have an unpleasant flavor, to lack body, and to taste watery. Overbrewing results in a bitter taste and a cloudy or muddy appearance. Reheating coffee results in an unpleasant, bitter, or oily taste. The most common cause of poor coffee is equipment that is not clean. The second most common cause is holding coffee too long.

Coffee used in food service is ground, instant, decaffeinated, freeze-dried, or a frozen concentrate. *Ground coffee* is available in regular, drip, and fine grind. Regular grind coffee is used for percolators. The drip grind is recommended for drip and vacuum coffee makers; however, the fine grind also may be used for these coffee makers. *Instant coffee* is powdered coffee which readily dissolves in hot or cold water and requires no special preparation. *Freeze-dried coffee* is an instant coffee blend. It is easy to recognize because of its larger crystals. Freeze-dried coffee is prepared the same as instant coffee. *Frozen coffee concentrate* comes in cans that are used with a special dispenser. The dispenser heats the water to the correct temperature, proportions the hot water and the coffee concentrate, and mixes and dispenses the coffee as needed. *Decaffeinated coffee* may be ground or instant. This coffee has coffee flavor, but it does not act as a stimulant because the caffeine has been removed.

In food service and dietary kitchens, coffee is made generally in either a coffee urn or the vacuum coffee maker. Both of these types of coffee equipment are discussed in Unit VI-3. Standard procedures for the preparation of coffee are given in the references.

TEA

Tea, the favorite beverage of the world, is the characteristic beverage of the Middle East, United Kingdom, and Asia. Tea is also a popular beverage in America. It is usually served as a hot or an iced beverage. Tea can be served spiced also (sweetened and seasoned with orange and lemon rind, cinnamon sticks, and cloves). In some food service institutions, such as nursing homes and child care centers, tea may be blended with fruit juices and other liquids for special occasions.

Tea is available for quantity preparation in various forms, such as bulk or loose tea leaves, individual tea bags, gallon-size tea bags, and instant tea. *Bulk tea* (tea leaves) must be measured and placed in a cheesecloth bag or a tea ball. The standard portion is one ounce of tea to one gallon of boiling water. Gallon-size tea bags may be used in place of bulk tea for quantity preparation. The individual tea bag may be used by the customer with boiling water to make one or two cups of tea. *Instant tea* is a powdered tea which requires no special preparation and can be made with hot or cold water.

The accepted standards for tea are that it be clear, mild in flavor, and free from tea leaves. Good tea may be attained by using clean equipment and by using the appropriate amount of tea for the amount of water.

Tea is made by pouring boiling water over tea leaves or bags and allowing it to *steep* (soak) from three to five minutes. Tea that is very strong may be cloudy; however, it becomes clear when a small amount of boiling water is added. Tea should not be boiled, since boiling causes a bitter flavor. Equipment used in the preparation of tea is discussed in Unit VI-3.

COCOA AND CHOCOLATE

Cocoa and chocolate are popular beverages and can be served as accompaniments to a meal or as special refreshments. They can be served hot or chilled. Since cocoa and chocolate are made with milk, they contribute important nutrients to the daily diet. Directions for the preparation of cocoa and chocolate are given in the references.

MILKSHAKES

Milkshakes are frequently served to customers in food service establishments for refreshment and to patients in health care institutions. Milkshakes may be used to increase the patient's calorie intake. Milkshakes also help to balance the patient's diet and increase nourishment when the patient is not able to eat regular foods.

The standard milkshake may be of various flavors. An egg or non-fat dry milk solids may be added to the standard milkshake to provide additional nutrients and calories.

Satisfactory methods for making milkshakes include the use of the electric blender, electric mixer, or a shaker. If this type of equipment is not available, the ingredients may be combined and beaten with a rotary eggbeater. Milkshakes are best served cold. Ice should not be added because this will dilute the ingredients. If milkshakes must be prepared in advance, they should be stored in the refrigerator and stirred before serving.

SUSTAGEN

Sustagen is a nourishment given either orally or by tube to sick patients. It is high in calories, proteins, vitamins, and minerals; and it is bland and nonirritating. It is essential that instructions be followed specifically and strict sanitary measures be taken.

Two dilutions of Sustagen are most commonly used. The more concentrated dilution requires equal amounts of Sustagen and water. It is recommended for oral use and for intermittent tube feedings by syringe or flask. The less concentrated dilution is made using twice as much water as Sustagen and is used for continuous drip feeding.

Sustagen is easy to prepare. If large amounts are needed, the measured Sustagen powder is placed on the surface of the required amount of liquid and allowed to stand until it is moistened. Then it is mixed with a mechanical mixer or an eggbeater until smooth. The bubbles should be allowed to disappear before it is used. Small amounts of Sustagen can be prepared in a shaker.

When Sustagen is properly prepared, it will not need straining. If, however, lumps occur due to hasty mixing, they should be strained out prior to tube use.

Sustagen should be stored in the refrigerator. It should be stirred before tube use if it has been refrigerated very long.

QUESTIONS:

1. a. What are the results of overbrewing coffee?

   b. What are the results of underbrewing coffee?

2. Accepted standards for tea are:
   a.
   b.
   c.

3. How is tea affected by boiling?

4. Describe the procedure for making tea.

5. Accepted standards for cocoa and chocolate beverages are:
   a.
   b.
   c.
   d.

6. What are the three reasons for serving milkshakes to patients?
   a.
   b.
   c.

7. What kinds of equipment can be used in the preparation of milkshakes?

8. List two kinds of cocoa.
   a.
   b.

9. How should cocoa products be stored?

In Items 10-13, place an X in the blank by the phrase which correctly completes each statement.

10. A good cup of coffee requires, among other things,
    ______ a. level, standard measurements.
    ______ b. heaping measurements.
    ______ c. a person who estimates well.
    ______ d. lengthy brewing.

11. Boiling water should be poured over the coffee grounds with a
    ______ a. quick, up and down motion.
    ______ b. slow, back and forth motion.
    ______ c. steady, circular motion.
    ______ d. slow, up and down motion.

12. Coffee in the urn should be held at a temperature of
    ______ a. 212° F. (100° C.).
    ______ b. 185° F. (85° C.).
    ______ c. 140° F. (60° C.).
    ______ d. 100° F. (56° C.).

13. The lower bowl of the vacuum coffee maker is filled to the correct level with
    ______ a. fresh, cold water.
    ______ b. boiling water.
    ______ c. carefully measured coffee grounds.
    ______ d. warm water.

In Items 14-19, match the beverage to the definition. Place the letter of the beverage in the blank to the left of each definition. Use each letter only once.

Definition

______14. Tea treated during fermentation for a pungent flavor

______15. Pale gold tea of brisk flavor

______16. Coffee concentrate frozen at low temperature into a solid mass

______17. Coffee of a soluble powder which dissolves in hot water

______18. Tea from semifermented and cured leaves

______19. Coffee with 95% of caffeine removed

Beverage

a. Black tea
b. Decaffeinated coffee
c. Freeze-dried coffee
d. Green tea
e. Instant coffee
f. Oolong tea

ASSIGNMENT:

I. Compare the methods of making coffee, tea, and cocoa at your training station with procedures described in references. Check to see if you can improve the way you prepare beverages.

GROUP WORK:

I. View a film which stresses the importance of coffeemaking in the food service business. Compare the brewing procedures illustrated in the film with the procedure followed at your training station.

II. In small groups, prepare posters illustrating the accepted standards for coffee, tea, cocoa, and chocolate. (Each small group illustrates standards for one beverage.) Display the posters on a bulletin board.

UNIT IX-2

COLD FOOD WORK STATION

SUBJECT: Salads

TASKS:
22. Follow standard procedures for preparing a variety of foods.
23. Evaluate the quality of foods prepared.

OBJECTIVES: When you finish this lesson, you should be able to
a. list different types of salads
b. describe procedures for preparing salads which retain nutrients and contribute to appearance
c. select salads appropriate to different functions in the meal.

REFERENCES: Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 132-134.

Lewis, Dora S.; Peckham, Gladys C.; Hovey, Helen S. *Family Meals and Hospitality.* New York, New York: Macmillan Publishing Co., Inc., 1972. pp. 139-148.

Salads add variety, crispness, color, and refreshing flavors to meals. Salads may be simple or elaborate. They usually contain combinations of vegetables, fruits, or both. A heartier salad may include protein foods, such as fish, meats, or eggs. Some salads are made with a gelatin base. Salads are excellent sources of vitamins, particularly A and C; and minerals, especially iron.

Salads have four basic parts:

1. The *base* or *underliner* refers to the foundation of the salad. It is usually a leafy green vegetable. Other items such as cottage cheese may be used as a salad base.
2. The *body* refers to the main ingredients of the salad. The ingredients should be appropriate for the use of the salad. For example, a main course salad usually contains meat, fish, cheese, or eggs.
3. The *garnish* for a salad is anything used to make the salad more attractive. Items such as radish roses, carrot curls, and olives are often used to garnish salads.
4. The *dressing* that accompanies the salad provides seasoning. It should enhance the flavor of the salad.

Any part of the salad may be omitted except the body.

SALAD INGREDIENTS

Planning suitable combinations of color, flavor, and texture; handling ingredients carefully; and arranging ingredients creatively make a salad attractive. Ingredients used in salads must be clean, fresh, tender, crisp, and chilled.

Salad Greens

The most commonly used salad green is iceberg lettuce. Other frequently used lettuces include butterhead, bibb, romaine, curly endive, and escarole. Other leafy vegetables used in salads are turnip and mustard greens, regular or red cabbage, and Chinese cabbage.

Wash, drain, and crisp salad greens before using them. Wash salad greens carefully and thoroughly in warm running water to remove dirt and insects. Remove the tough stems, older ribbed outer leaves, and any bruised or wilted leaves. To clean the lettuce, remove the core by hitting the core end sharply on the counter, then twisting the core to remove it. Run water into the area where the core was removed and separate the lettuce leaves. Turn the core end down and drain. Crisp salad greens by covering in the refrigerator, or cover with a towel and ice.

All salad greens are fragile and must be handled with care. They bruise and discolor easily. Hand tearing or using stainless steel cutlery prevents discoloration. Commercial products are also available to prevent it.

Salad Vegetables

Many types of vegetables are used in salads. Either fresh or cooked vegetables may be used. Pieces of varied sizes should be used in salads for interest.

When preparing vegetables, be careful to preserve taste and texture. Remove the inedible parts of vegetables. Be sure they are free from defects. Drain canned vegetables before using.

To prepare vegetables such as carrots and celery, wash them thoroughly, pare them if necessary, and cut them to desired shapes. Use a sharp, stainless steel knife to cut vegetables to avoid bruising them during preparation.

To remove the skins of tomatoes, dip them in boiling water until the skin is loosened, and then dip the tomatoes in cold water.

Store vegetables in the refrigerator if they are not needed immediately. For best results, place them in a container and cover them with a clean, damp cloth or plastic wrap before refrigerating.

If vegetables are not as crisp as desired, enclose them in a plastic bag with a small amount of ice and refrigerate for a few minutes.

Salad Fruits

Salads may include fresh, raw, canned, or dried fruits as ingredients. Some fruits, such as bananas, apples, pears, and avocados, turn dark when exposed to air. Dip these fruits in an ascorbic acid solution to prevent darkening. Use lemon juice, fruit juice, vinegar and water, citric acid and water, or a commercial product. Remove inedible seeds, skins, and stems from all salad fruits.

Protein Foods

Protein foods such as meat, poultry, fish, cheese, and eggs are used in main course salads. Sometimes leftover protein foods are used. They often are marinated in vinegar and oil with spices and herbs.

QUESTIONS:

1. Why do meals include salads?

2. List the six types of salads.
   a.
   b.
   c.
   d.
   e.
   f.

3. Describe the procedure for preparing lettuce for a salad.

4. How are vegetables made extra crisp?

5. How is darkening of fruits such as bananas or apples prevented?

6. Efficient salad preparation is important. Outline general procedures for assembling salads.

7. Describe two ways to prevent the loss of nutrients from salad greens and vegetables during preparation.
   a.

   b.

In Items 8-10, place an X in the blank by the phrase which best completes each sentence.

8. A salad may be used as
   ______ a. an appetizer.
   ______ b. a side dish.
   ______ c. a dessert.
   ______ d. a main dish.
   ______ e. all of these.

9. An example of a salad which may be used as an entrée is
   ______ a. potato salad.
   ______ b. coleslaw.
   ______ c. chicken salad.
   ______ d. Waldorf salad.
   ______ e. tossed salad.

10. Which of these salads would be a good example of a side dish or accompaniment?
   ______ a. Frozen fruit salad
   ______ b. Tuna salad
   ______ c. Carrot-raisin salad
   ______ d. Egg salad
   ______ e. Chicken salad

In Items 11-15, match the dressings to their characteristics. Place the letter of the dressing in the blank to the left of each characteristic. The letters may be used more than once.

Characteristics

______11. Separates on standing

______12. A permanent emulsion

______13. Made without oil

______14. Has a limited storage period

______15. Inexpensive but not as rich as other dressings.

Dressings

a. Cooked
b. Cream
c. French
d. Mayonnaise

ASSIGNMENT:

I. Choose one of the salads served at your training station and do the following:
   1. List the equipment required for preparation of the salad.
   2. List the necessary ingredients.
   3. Draw the work center and explain how the salad can be assembled in a quick and efficient manner.

   Turn this assignment in to your teacher.

GROUP WORK:

I. View a filmstrip on salad ingredients, dressings, and serving tips. Discuss the techniques shown in the filmstrip. List ideas you may be able to incorporate into your work at your training station.

UNIT IX-3

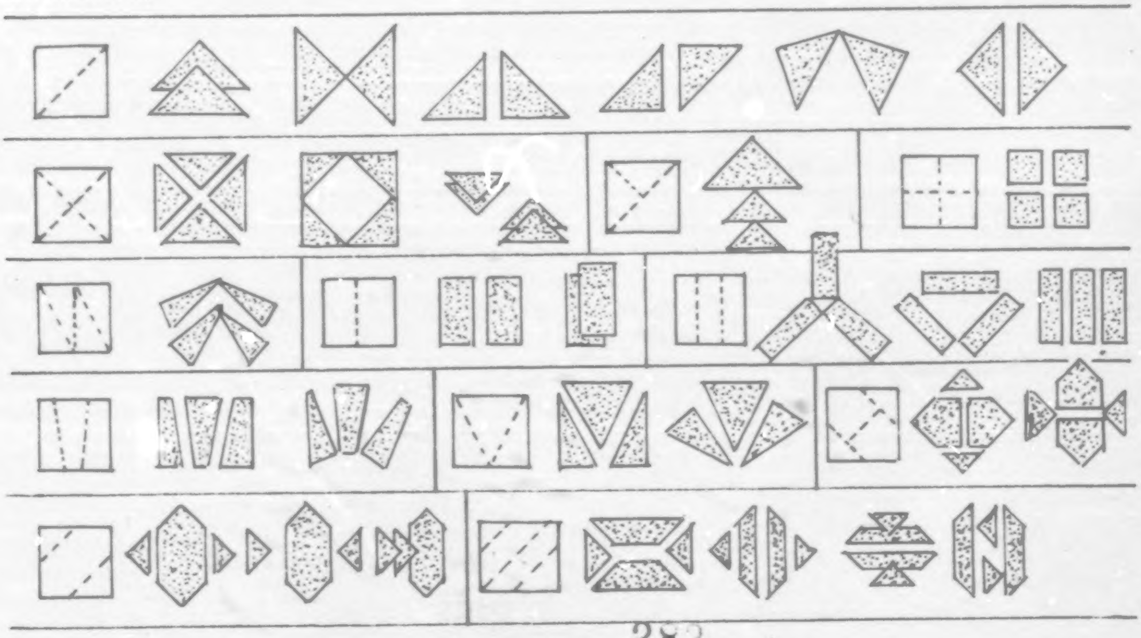
COLD FOOD WORK STATION

SUBJECT:	Sandwiches
TASKS:	22. Follow standard procedures for preparing a variety of foods. 23. Evaluate the quality of foods prepared.
OBJECTIVES:	When you finish this lesson, you should be able to a. describe procedures for making sandwiches b. identify characteristics of quality products.
REFERENCES:	Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 134-137. Lewis, Dora S.; Peckham, Gladys C.; and Hovey, Helen S. *Family Meals and Hospitality.* New York, New York: Macmillan Publishing Co., Inc., 1972. pp. 127-132; 396.

The sandwich is one of the most popular menu items in America. Sandwiches are served hot or cold, with or without gravy or sauce. They may be open-faced, closed, grilled, rolled, or multi-layered. Sandwiches are made of regular or specialty breads and may be filled, spread, or covered with a variety of items from meats and cheeses to jams, jellies, and specialty spreads. They may be offered at intervals as an entrée to add variety to cycle menus, or may be served as between-meal snacks.

Serving Sandwiches

Sandwiches may be cut in a variety of shapes. The cut sandwiches should be arranged attractively on the serving plate. Ways to cut sandwiches and arrange them in an eye-appealing manner are shown below.



QUESTIONS:

Connie is employed at a food service establishment. Her supervisor has assigned her to the sandwich-making area. Let's follow her through her first day's activities and see if you can answer her questions.

1. Before Connie started work, her supervisor gave her some hints about the quality expected. What would her supervisor have told her about the following?
   a. What should be included with sandwiches containing soft fillings?

   b. How much filling is a standard size portion for a sandwich?

   c. What suggestions might her supervisor have given her about spreading fillings in relation to the edge of the sandwich?

   d. What would the supervisor tell Connie about the cut edges of the sandwiches?

   e. What could be done to prevent the filling from soaking into the bread?

2. As Connie observed her co-worker spreading the filling on bread, she noticed the spreading motion used was ____________________________.

3. After the sandwiches were made, Connie had the following questions.
   a. How high should she stack the sandwiches for cutting?

   b. What should she use to cover unwrapped sandwiches that need to be refrigerated for storing?

4. Connie's supervisor told her that it is very important that she use the amount of spread and filling specified. If more than the specified amount is used, there will not be enough ingredients for the required number of sandwiches. If not enough is used, the customer will be dissatisfied. Suppose Connie used 3½ T. of spread per sandwich instead of the 2 1/3 T. specified. Instead of being able to make 102 sandwiches per gallon of filling, she would be able to make only 73. If the sandwiches sold for $1.50 each, how much would the business lose?
   $____________________________

5. a. What are party sandwiches?

   b. Draw and name three types of party sandwiches.

6. How is a sandwich loaf made?

7. List the qualities of a good sandwich.
   a.
   b.
   c.
   d.
   e.

8. List the qualities of well-prepared toast for sandwiches.
   a.
   b.
   c.
   d.

9. What ingredients should *not* be frozen in sandwiches?
   a.
   b.
   c.
   d.
   e.
   f.

10. Sandwiches can be refrigerated for up to ______________ hours at ______________° F.

11. Sandwich fillings should not stand at room temperature for more than ______________ hours.

ASSIGNMENT:

I. If you work in the sandwich area, write out the procedure you now use. What can you do to improve your work methods? Time yourself using the method you now use and then try your new plan. Report the results of your experiment to your teacher and to your training sponsor.

GROUP WORK:

I. View a filmstrip showing how to make and wrap sandwiches by hand or machine. Discuss the differences and similarities in the techniques shown in the filmstrip and those used at your training station.

II. Form small groups and prepare a demonstration for class showing how to prepare and wrap sandwiches in quantity. Be sure to point out ways to simplify and speed the preparation.

UNIT IX-4

COLD FOOD WORK STATION

SUBJECT: Garnishes and Condiments

TASKS:
22. Follow standard procedures for preparing a variety of foods.
23. Evaluate the quality of foods prepared.

OBJECTIVES: When you finish this lesson, you should be able to
a. cite ways to use garnishes
b. describe procedures for preparing garnishes
c. identify items known as condiments.

REFERENCES: Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 130-131.

Lewis, Dora S.; Peckham, Gladys, C.; and Hovey, Helen S. *Family Meals and Hospitality.* New York, New York: Macmillan Publishing Co., Inc., 1972. p. 278.

Weiss, Edith, and Weiss, Hal. *Catering Handbook.* New York, New York: Ahrens Publishing Company, 1971. pp. 163-172.

GARNISHES

What makes the difference between plain food and something really special? It may be nothing more than a slice of lemon or a sprig of parsley, or perhaps a dash of nutmeg or cinnamon. The finishing touches placed on or around food are called *garnishes.* Garnishes add a touch of color or flavor to the food.

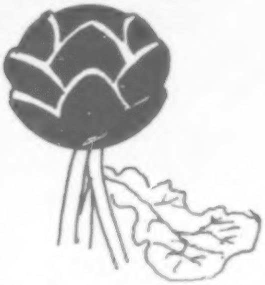
Some general suggestions for using garnishes are the following:

1. Use garnishes that can be eaten. However, little figures, flags, or flowers may be used for special occasions.
2. A garnish should improve the appearance of the food with which it is served but should not overpower it.
3. Balance the placement of garnishes on the platter, or use the garnish in several spots. Odd numbers are usually more pleasing. For example, three lemon slices on a platter of fish are more interesting than four.
4. Experiment with garnishes, considering color, size, and texture. How would it look to use sliced limes on a plate of baked salmon? Or a maraschino cherry on a strawberry dessert? There should be a contrast between the garnish and the food.
5. Colorful, natural foods can be used to give very pleasing effects. Examples are paprika, pimento, lemon slices, fresh green onions, and stuffed olives.
6. Avoid using artificial colors. Blue and purple are not considered very appetizing.
7. Use fresh garnishes of high quality. There is nothing attractive about wilted parsley or dried lemon wedges.
8. Avoid garnishes with liquid sauces that run into foods they accompany.
9. Some dishes are garnishes in themselves, a self-garnish. One example would be a tomato cup filled with green peas.

10. Try to keep the temperature of the garnish near the temperature of the food, or "protect" the garnish to keep it at the correct temperature. For example, placing cranberry jelly on a candied apple ring or mint jelly on an orange slice keeps the jelly from melting on a hot plate.
11. Avoid toothpicks in garnishes unless they can be seen easily.
12. Garnishes can be prepared ahead of time and placed in the refrigerator for use just before the main food item is to be served.

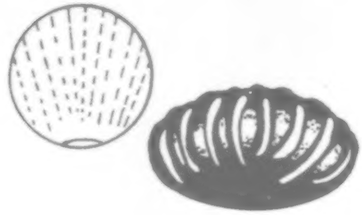
The following illustrations show common garnishes and how to prepare them.

RADISH ROSES:



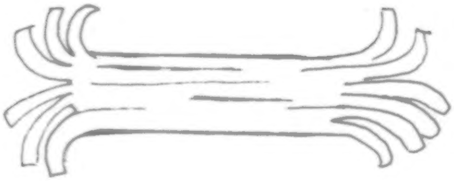
Wash radishes and cut off the root, but leave about an inch of stem. Hold the radish, stem down. Use a sharp knife to make overlapping cuts down and into the sides of the radish. Do not cut completely through the skin, but cut just enough to make the red skin stand away from the center of the radish. Place in cold water to make the "petals" open and remain crisp.

RADISH ACCORDIONS:



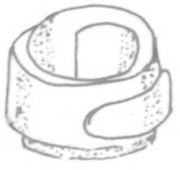
Remove the root and stem. Hold the radish lengthwise as shown. Using a sharp knife, make thin slices in the radish from the root end to the stem end, being careful not to cut completely through the radish. Place in cold water to force open.

CELERY FANS:



Cut celery into approximately two and one-half inch pieces. Make short cuts, close together in one end. The other end may be cut in the same manner or left as it is. Place in cold water to make celery curl. Green onion stems can be thinly cut in the same manner and will fan out in cold water.

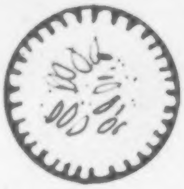
CARROT CURLS:



After peeling a large, thick carrot, cut very thin slices lengthwise with the peeler. Wrap each slice around your finger and secure with a toothpick. Place in cold water until crisp. Remove toothpick before serving.

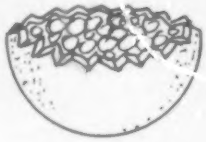
Very thin vertical carrot slices can be used instead of a lettuce leaf as a base or nest for cottage cheese or other food.

SCORED CUCUMBER:



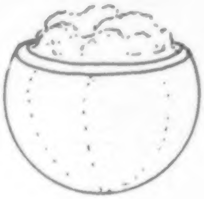
After washing cucumber, score it by running the prongs of a fork lengthwise along all sides. Slice as desired.

CITRUS CUPS:



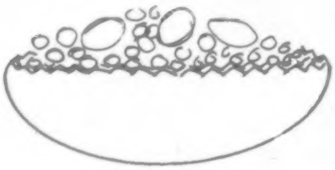
Cut in half with plain or saw-toothed edges. Remove pulp. Fill with gelatin salad, coleslaw, mixed fruit salad, cranberry sauce, or crushed pineapple. Citrus twists, slices, or wedges are more commonly used.

TOMATO CUPS:



After slicing off top of tomato, hollow out a small portion. Mashed potatoes or seasoned bread crumbs may be used to fill the depression. Then warm in the oven along with the meal. Tomato flowers are commonly used to hold salads.

MELON BASKET:



Slice a watermelon lengthwise and hollow out. A saw-toothed edge adds to appearance. Using a melon baller, make balls of watermelon, cantaloupe, and honeydew melon. Put all the balls into the melon "boat." Scoops of sherbet can be added for extra interest.

In choosing garnishes, keep in mind the taste combination of the garnish and the food and try to visualize the colors together. Anyone can "sling hash," but a little extra care can turn an ordinary plate of food into a work of art.

Uses for Garnishes

Garnishes can make many foods more appealing. The possibilities are endless. Consider some of the following suggestions.

Garnishes for soups are usually easy. Soup garnishes generally consist of something sprinkled, dabbed, or floated on top. Snips of parsley, sieved hard-cooked eggs, grated cheese, or bacon bits are often sprinkled on soup. Slices of salami, frankfurter, or egg may be floated on the soup also. Sour cream is sometimes dabbed on soup. Don't let the garnish cool the soup or delay the service.

Meat, fish, or poultry may be garnished with parsley, watercress, or curly endive. Lemon slices or wedges garnish fish. Colorful vegetables also may be arranged attractively around meats.

Casseroles may be topped with grated cheese, tomato slices, sliced olives, or rings of green pepper. Triangles of sliced cheese could be used also to decorate a casserole.

Fruits, vegetables, and crisp salad greens need very little garnish. A colorful garnish may improve the appearance of meat, fish, poultry, macaroni, rice, and potato salads. Use salad greens, tomato wedges, sliced stuffed olives, sliced hard-cooked eggs, or chopped pickle to garnish these salads.

Candied and fresh fruits, nuts, coconut, whipped cream, or berries may add appeal to custards, gelatins, and puddings. Cakes can be decorated with candies, fruits, coconut, and nuts. Try twisted lattice strips, pastry cutouts, or fancy slits in the upper crust to decorate a pie. Coconut, nuts, hard candy, and whipped cream may be used also to garnish pies.

CONDIMENTS

Some dishes are served with special sauces or accompaniments called *condiments.* A condiment is a seasoning for food, such as a sauce or a relish or even salt and pepper. Some condiments can be added in the kitchen. Examples of condiments include cocktail sauce with seafood; lemon with seafood; ketchup and pickles with hamburger; steak sauce with steak; mustard and relish with hot dogs; cranberry sauce with turkey; syrup with pancakes; dressing with salads; butter with bread and rolls; crackers with soup; soy sauce with Oriental dishes; butter, sour cream, and chives with baked potato; melted butter with lobster; cream and sugar with coffee; and lemon and sugar with tea.

QUESTIONS:

1. What are garnishes?

2. What are two reasons for using garnishes?
   a.

   b.

3. List three points to consider when choosing the number, color, and texture of garnishes to use with a food.
   a.

   b.

   c.

4. Is it a good idea to use toothpicks in garnishes? Why?

5. What is a condiment?

6. List three examples of a food and an appropriate condiment for the food.
   a.

   b.

   c.

In Items 7-11, match the garnish to the food to be garnished. Place the letter of the garnish in the blank to the left of the food. The letters may be used more than once.

Foods

_____ 7. Soups

_____ 8. Meats

_____ 9. Casseroles

_____10. Salads

_____11. Custards

Garnishes

a. Cheese, grated
b. Coconut
c. Egg
d. Nuts
e. Olives
f. Parsley
g. Tomato slices

ASSIGNMENT:

I. Note examples of garnishes used on foods pictured in magazines or newspapers, or on food served to you when you eat in a restaurant.

GROUP WORK:

I. View a filmstrip on garnishes. List the garnishes used in your training station that were *not* shown in the filmstrip. Describe how to make these garnishes. Discuss your list with other students in ths group.

II. Form small groups to compare and discuss the preparation and use of garnishes at your training station.

III Plan a demonstration to show your class how to prepare and arrange simple garnishes for foods.

UNIT X-1

HOT FOOD WORK STATION

SUBJECT: Milk, Milk Products, and Eggs

TASKS:
22. Follow standard procedures for preparing a variety of foods.
23. Evaluate the quality of foods prepared.

OBJECTIVES: When you finish this lesson, you should be able to
- a. identify forms of milk
- b. identify types of milk products
- c. describe principles involved in cooking milk products and eggs
- d. identify characteristics of quality products.

REFERENCES: Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 126-127.

Lewis, Dora S.; Peckham, Gladys C.; and Hovey, Helen S. *Family Meals and Hospitality.* New York, New York: Macmillan Publishing Co., Inc., 1972. pp. 222-228; 231-240.

QUESTIONS:

1. You are to prepare an order of scrambled eggs. Would you use large eggs or small eggs? Why?

2. Explain the difference in the preparation of a plain omelet and a fluffly omelet.

3. What is the effect of high cooking temperature on eggs and products containing a large amount of eggs?

4. List three points to remember when whipping egg whites in order to obtain a good product.
   a.
   b.
   c.

5. List some foods which are milk products.

6. When cooking or heating milk or milk products, what temperature and length of cooking time are necessary?

7. What can be done to prevent the formation of scum on top of hot milk?

8. If a scum does form on heated milk, what can be done to get rid or it?

9. A food service manager is concerned with reducing the cost of preparing a custard dessert. Which form of milk would the manager choose to lower the cost of the product?
   ______ a. Whole fresh milk
   ______ b. Dried milk
   ______ c. Evaporated milk

10. When preparing a product such as cream of tomato soup, what can you do to prevent the acid in the tomatoes from curdling the milk?

11. What are three points to remember when whipping cream to obtain a good product?
   a.
   b.
   c.

12. What is the result of cooking cheese at a high temperature for a long period of time?

13. At what temperatures should eggs be cooked? Why?

14. List the qualities of well-cooked scrambled eggs.
   a.
   b.
   c.
   d.

15. Describe three methods for preparing hard-cooked eggs.
   a.
   b.
   c.

For Items 16-21, match the product to the function(s) eggs perform in the preparation of the product. Place the letter of the function in the blank to the left of each product. The letters may be used more than once.

Products

______16. Custards
______17. Mayonnaise
______18. Breaded fried fish
______19. Yellow cakes
______20. Souffles
______21. Meat loaf

Functions

a. Binding
b. Coating
c. Coloring
d. Emulsifying
e. Leavening
f. Thickening

ASSIGNMENT:

I. List the forms (dried, fresh, etc.) and sizes of eggs and methods used at your training station. Identify the dishes prepared with each form and the steps in each method. Study these steps so that you are able to prepare quality products. Repeat the assignment for forms of milk used.

GROUP WORK:

I. Form small groups and make posters showing standards for various preparation methods for eggs. Use the posters as a bulletin board.

II. In a group prepare a substitution conversion chart showing how the forms of milk can be used interchangeably: fresh milk, evaporated, condensed, nonfat, and buttermilk.

UNIT X-2

HOT FOOD WORK STATION

SUBJECT: Vegetables

TASKS:
22. Follow standard procedures for preparing a variety of foods.
23. Evaluate the quality of foods prepared.

OBJECTIVES: When you finish this lesson, you should be able to
a. identify the characteristics of vegetables
b. describe the correct procedures for vegetable cookery.

REFERENCES: Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 122-125.

Lewis, Dora S.; Peckham, Gladys C.; and Hovey, Helen S. *Family Meals and Hospitality.* New York, New York: Macmillan Publishing Co., Inc., 1972. pp. 150-162.

Can you imagine a world of food without vegetables? Not only do vegetables provide beautiful colors and interesting textures for our meals, but they also can be used in a multitude of different ways. They're *also* important sources of vitamins and minerals.

All too often, health care and food service operations neglect the importance of preparing vegetables properly. However, if they use high-quality vegetables, good equipment, and correct preparation techniques, they can serve pleasing, nutritious vegetables to patients and customers.

FORMS OF VEGETABLES

Many vegetables are available only at certain times of the year, or can be grown only in certain parts of the country. Due to modern transportation and storage methods, it is possible to have a wider variety of fresh vegetables all year than was available in the past. Vegetables are available year-round in various forms, and many health care and food service operations use all the forms of vegetables described below.

Fresh: Generally considered the best for flavor. Must be washed and examined for removal of wilted leaves, coarse stems, and bruised or damaged portions.

Frozen: Similar to fresh in color and flavor. No washing is necessary; need only to be cooked and seasoned, thus saving time and effort in preparation.

Canned: Like frozen vegetables, canned vegetables can be stored easily and prepared quickly. Because of heat used in the canning process, flavor and texture are usually altered.

Dried: Have most of the water removed. Drying changes the appearance.

PREPARATION OF VEGETABLES

1. Wash fresh vegetables carefully to remove soil and bacteria. Green, leafy vegetables should be washed several hours before serving in warm water and then crisped by refrigeration.

2. If the surface of the vegetable is unbroken, soaking in salt water (one tablespoon salt per gallon of water) may help to loosen dirt.

3. Soak vegetables such as cauliflower, broccoli, cabbage, and brussels sprouts in cold, salted water for half an hour to get out mites sometimes present in the leaves.

4. Remove bruised spots and parts on leaves.

5. Vegetables often can be crisped by placing in cold or iced water.

6. To preserve nutrients, remove only as much skin or peel as necessary. Better yet, serve in the skin when possible.

7. To ensure even cooking, use a sharp knife to cut vegetables into uniform pieces.

TYPES OF VEGETABLES

Vegetables can be classified into four main types. The cooking techniques used depend upon the type of vegetable.

1. *High moisture with mild flavor.* Examples include celery, spinach, peas, and string beans. These vegetables require careful cooking to retain their mild flavor.

2. *High moisture with strong flavor.* Examples are cabbage, onions, and vegetables from the turnip family. Proper cooking techniques reduce their strong flavor.

3. *High moisture with high starch content.* Irish and sweet potatoes are in this group. The starch must be cooked without the vegetable losing other qualities from overcooking.

4. *Low moisture with dry starch content.* Examples include legumes, macaroni products, rice, and cereals. They are cooked in a manner similar to group three above but require a large quantity of water.

METHODS OF COOKING VEGETABLES

Vegetables may be cooked by simmering, steaming, and baking. These techniques are described in the chart on p. 285. Other cooking techniques for vegetables are described on p. 286.

METHODS FOR COOKING VEGETABLES

	Mild-Flavored, High-Moisture Vegetables	*Stong-Flavored, High-Moisture Vegetables*	*High-Starch, High-Moisture Vegetables*	*Dry-Starch, Low-Moisture Vegetables*
Simmering	The best method for cooking this group. Use a small amount of water, only enough to cover the vegetables. Cook only until done to retain flavor and shape.	The best method for cooking this group. The cabbage and turnip groups should be cooked for a longer period. Cook uncovered to reduce the strong flavor of these vegetables.	Not the best method for cooking these vegetables. Boil gently to avoid breaking up the vegetables.	*Legumes:* Soak before cooking. Bring to boil, cover pot, and cook gently until tender. *Macaroni Products and Rice:* Stir into boiling, salted water. Cover, bring to a boil, uncover, simmer until tender or for two minutes, remove from heat, cover, let stand until tender. *Cereals:* Add to boiling, salted water; stir until thick. Reduce heat, cover, simmer until done.
Steaming	Most vegetables in this group can be steamed, but water must be added.	Same as for the mild-flavored, high-moisture vegetables.	The best method for cooking this group. Irish and sweet potatoes are sometimes partially steamed and then baked. French fries can be steamed until partially done and then deep-fried.	*Legumes:* Soak, cover with salted water in solid basket; steam until skins crack. *Macaroni Products and Rice:* Add to boiling water in solid basket, stir two minutes to separate, steam until tender. *Cereals:* Bring salted water to boil, add cereal, stir to blend, steam until done.
Baking	Some, such as tomatoes, can be baked alone. Others may be partially cooked by boiling, then finished by baking. Those that do not bake well alone can be added to souffles and puddings or baked in a sauce.	These vegetables do not bake well alone, but can be combined with other ingredients or baked in a sauce or liquid.	A good method for preparing these vegetables. Cook in skins.	These products may be baked but must be cooked by boiling or steaming before baking.

Deep-Frying

Potatoes are the most frequently deep-fried vegetable, but many other vegetables can be successfully prepared in this manner. A coating may or may not be used. Some vegetables may be partially cooked by boiling or steaming and then finished in deep fat.

To fry potatoes:

1. Dry potatoes well before frying.
2. Lower into fat and cook at 375° (190° C.) until done (about 7 minutes for ½-inch thick potatoes).
3. Or lower into fat and blanch at 375° F. (190° C.) until tender but not browned. Store under refrigeration for up to several days or for a longer period if frozen. To complete the cooking, cook in fat at 350-380° F. (177-193° C.) for about 2 minutes.

Many restaurants now use commercially blanched frozen potatoes. Potatoes also may be blanched under 7 to 10 pounds of steam for one to two minutes and then fried.

Grilling

Another method for cooking raw vegetables is sauteeing or pan-frying. Vegetables such as potatoes may be sauteed on a griddle.

Pan-braising is cooking in a covered container with a small amount of fat and liquid. High-moisture vegetables are cut, shredded or diced, and placed in a skillet with one tablespoon of fat, one teaspoon of salt, and two tablespoons of water per quart of vegetables. The container is covered and allowed to steam or braise. Vegetables should be stirred occasionally. This is an expensive method of preparation, but produces a good product. Pan-braising may also be done in a steam-jacketed kettle or an oven.

Oven Roasting. Vegetables are placed in a well-greased pan and put into a very hot oven to "fry." They must be stirred frequently.

Broiling. Usually vegetables are partially or completely cooked by steaming, braising, or boiling, and then placed under the broiler for final browning.

QUESTIONS:

1. What is the main concern when cooking:
   a. high-moisture, mild-flavored vegetables?

   b. high-moisture, strong-flavored vegetables?

   c. moist, starchy vegetables?

   d. dry, starchy vegetables?

2. What is the best method for cooking moist, starchy vegetables?

3. What temperature should the water be when adding macaroni products and rice?

4. What needs to be done to potatoes before they are deep-fried?

5. What would be the advantage of using frozen vegetables rather than fresh vegetables?

6. Which would you expect to take longer to cook, a root vegetable, such as turnips, or a leaf vegetable, such as spinach?

7. Baking is not a good technique to use to prepare spinach. What could be done with the spinach so that it could be successfully baked?

8. What can be done to preserve the water-soluble vitamins in vegetables during cooking?

9. What can be added when cooking green vegetables to help retain the green color?

10. What is the result of overcooking white vegetables, such as onions and cauliflower?

In Items 11-12, place an X in the blank by the phrase which best completes each statement.

11. When cleaning vegetables by soaking, the process can be hastened by using:
    ______ a. 1 cup of sugar in 1 gallon of water.
    ______ b. 1 tablespoon of detergent in 1 gallon of water.
    ______ c. 1 tablespoon of salt in 1 gallon of water.

12. Vegetables that have lost their crispness may be restored by:
    ______ a. placing them in ice water.
    ______ b. soaking them in salt water.
    ______ c. refrigerating them for one hour.

For each letter in Item 13, underline the correct answer from the pair of phrases in parentheses.

13. When cooking strong-flavored vegetables, you should cook them
    a. (covered, uncovered)
    b. at a (high temperature, low temperature)
    c. in (large, small) amounts of water
    d. for a (short period of time, long period of time).

In Items 14-17, match each vegetable with the type of vegetable to which it belongs. Place the letter of the vegetable in the blank to the left of each type of vegetable. Use each letter only once.

Types of Vegetables	*Vegetables*
______14. High-moisture, mild-flavored	a. Cabbage
______15. High-moisture, strong-flavored	b. Dried beans
______16. Moist, starchy	c. Potatoes
______17. Dry, starchy	d. Rice
	e. Spinach
	f. Turnips

ASSIGNMENT:

I. List both the methods of preparing vegetables used at your training station and the types of vegetables prepared by each method.

GROUP WORK:

I. Share your list with other students to see the variety of preparation methods and types of vegetables served at various health care and food service establishments.

UNIT X-3

HOT FOOD WORK STATION

SUBJECT: Cereals and Pastas

TASKS:
22. Follow standard procedures for preparing a variety of foods.
23. Evaluate the quality of foods prepared.

OBJECTIVES: When you finish this lesson, you should be able to
a. list different types of cereals and pastas
b. identify characteristics of standard products.

REFERENCE: Lewis, Dora S.; Peckham, Gladys C.; and Hovey, Helen S. *Family Meals and Hospitality.* New York, New York: Macmillan Publishing Co., Inc., 1972. pp. 204-211.

Many of the foods that you eat every day come from seeds of edible grasses. These seeds are called grains. The most widely used grains are rice, wheat, corn, and oats. Processed grains include flour, meal, breakfast cereal, rice, and pastas.

RICE

Most people think of breakfast when they hear the word "cereal." Rice is a cereal grain though it is not usually associated with breakfast. Rice is served as an accompaniment to meat, an entrée, a substitute for potatoes, or an ingredient in a casserole. Rice is used also to make breakfast cereals, salads, and desserts.

Rice may be cooked by a number of methods. The method preferred by your employer should always be used. Two methods for cooking rice are described below.

> *Method One.* Add rice slowly to boiling, salted water. Stir while adding rice. Cover pot until water boils again. Uncover and boil gently until tender. If the grains of rice stick together or to the bottom of the pot, stir gently. When the rice is tender, drain the water. Blanch with cold water. When cooled, drain off the water.
>
> *Method Two.* A steam-jacketed kettle or heavy pot with a tight cover can be used for this method. First wash the rice thoroughly in fresh water to remove excess starch. Then add 2 tablespoons of oil, 1¾ quarts of water, and 2 tablespoons of salt per pound of rice. Cover tightly and bring to a boil, stirring only once. Set on low heat, covered, for about thrity minutes. During the last ten minutes, uncover so that the rice steams dry. No water should need to be drained. If the rice absorbs all the water and starts to harden, add some more water to keep the rice soft.

PASTAS

A *pasta* is a food made from flour paste, such as noodles, macaroni, and spaghetti. Pastas are used in soups and salads either as accompaniments to main dishes or as the main dishes. When used as the main dish, a pasta is usually supplemented with a protein food, such as meat or cheese.

Pasta products are available in many different shapes. Pastas are cooked to the stage where there is some resistance when the product is chewed and it is not completely tender. This stage is sometimes referred to as "al dente." Pasta products may be prepared in the same manner as the first method for preparing rice described earlier. Another common method for cooking pasta is to wash the pasta thoroughly several times to remove excess starch. Add 2 tablespoons of oil, 2 tablespoons of salt, and a gallon of water per pound of pasta. Cover the kettle tightly and bring the water to a boil. Reduce to low heat and cook slowly. Remove cover the last few minutes to allow steam to escape. This helps separate the pasta.

QUESTIONS:

1. Name four types of products processed from grains.
    a.
    b.
    c.
    d.

2. What is a pasta?

3. Examples of pastas are:
    a.
    b.
    c.

4. Pastas are cooked to a stage referred to as "al dente." What does this mean?

5. Outline the two methods for cooking cereals.
    a.

    b.

6. List qualities of properly cooked cereals.

7. List five types of breakfast cereals which require cooking.
    a.
    b.
    c.
    d.
    e.

8. How can lumps be prevented from forming when cooking cereals?

9. How can the cereal be prevented from sticking to the container in which it is prepared?

10. The grains that are most important in our country are:
    a.
    b.
    c.
    d.
    e.
    f.

11. How should cereal products be stored?

12. The structure of all grains includes the ____________________, ____________________, and ____________________.

ASSIGNMENT:

I. Identify the method(s) used to prepare cereals at your training station. List the steps in each method. Study these methods to be able to prepare quality products.

GROUP WORK:

I. View a filmstrip on the variety of ways macaroni products can be prepared and served. Discuss the examples from the filmstrip and those used at your training station.

II. View a filmstrip showing the use of rice in the diet and information on purchasing, preparing, and serving rice. Discuss the techniques for preparing and serving rice products that differ from those used at your training station.

III. List the types of cereal and pasta dishes and methods of preparation used at your training station. Share your list with other food service and dietary students to see the variety of dishes and methods of preparation used at various establishments.

IV. Form small groups and prepare a demonstration for the class showing how to prepare cooked cereals. Discuss the differences and similarities in the techniques shown in the demonstration and those used at your training station.

UNIT X-4

HOT FOOD WORK STATION

SUBJECT: Soups and Sauces

TASKS:
22. Follow standard procedures for preparing a variety of foods.
23. Evaluate the quality of foods prepared.

OBJECTIVES: When you finish this lesson, you should be able to
a. describe procedures for preparing soups and sauces
b. identify types of soups
c. identify types of sauces.

REFERENCES: Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 127-128.

Lewis, Dora S.; Peckham, Gladys C.; and Hovey, Helen. *Family Meals and Hospitality.* New York, New York: Macmillan Publishing Co., Inc., 1972. pp. 133-139; 278-284.

QUESTIONS:

1. How is soup stock prepared?
2. Describe how to clarify stock.
3. What can be done to repair a lumpy gravy?
4. What should you do if gravy is too thin?
5. What is the difference between bouillon and consommé?
6. What are the qualities of a good soup?
   a.
   b.
   c.
   d.
   e.
7. What is a roux?

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8. In what products is a roux used?

9. Describe how to prepare a gravy.

10. What thickening agents are used in fruit sauce?

11. Describe how to prepare a white sauce.

ASSIGNMENT:

I. List and classify the soups and sauces used at your training station.

GROUP WORK:

I. Form small groups to compare the soups and sauces served in various health care and food service establishments. Are these products made from scratch, or convenience foods? Are only a few served, or is a wide variety offered to the patient or customer?

UNIT X-5

HOT FOOD WORK STATION

SUBJECT: Meats, Poultry, and Seafood

TASKS:
22. Follow standard procedures for preparing a variety of foods.
23. Evaluate the quality of foods prepared.

OBJECTIVES: When you finish this lesson, you should be able to
a. describe procedures for preparing meats, poultry, and seafood
b. identify characteristics of standard products.

REFERENCES: Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 117-122.

Lewis, Dora S.; Peckham, Gladys C,; and Hovey, Helen S. *Family Meals and Hospitality.* New York, New York: Macmillan Publishing Co., Inc., 1972. pp. 256-278; 284-304.

An important point in cooking meats, poultry, and seafood is to be certain they are well-cooked. Beef can be cooked to only rare, if so desired. But pork, poultry, and seafood must be cooked well-done. Poultry especially must be cooked completely. Instant reading meat thermometers now make the job of recording meat temperatures easier.

QUESTIONS:

1. Define the term *marbling* as used in reference to meats.

2. Pork may be infected with parasites called "trichinae." How can these be destroyed?

3. What does the federal inspection stamp on large wholesale cuts of meat guarantee?

4. List three reasons why meats should be cooked at low to moderate temperatures.
   a.
   b.
   c.

5. Which methods are best for preparing tender cuts of meat?

6. Describe the way to place a meat thermometer correctly in a cut of meat.

7. Why should special precautions be taken in cooking poultry?

8. Why are moist-heat cookery methods used to prepare less tender cuts of meat?

9. What is the difference between the methods of braising and stewing a large cut of meat?

10. Which cooking methods may be used to prepare a broiler chicken that may *not* be used to prepare a hen?

11. What types of dishes are prepared from the meat of older, tougher poultry?

12. How can one determine when poultry is cooked completely?

13. What is the result of overcooking shellfish?

14. How can one determine when white fish is done?

15. Why should the fat used to deep-fry fish not be used to fry other foods?

ASSIGNMENT:

I. Identify the types or forms (fresh, frozen uncooked, frozen precooked, ready to cook, etc.) of meats, poultry, and seafood used in your training station. List specific examples from the menu of dishes prepared from each type.

GROUP WORK:

I. List the preparation techniques used for meats, poultry, and seafood in your training station. Form groups and discuss the techniques used at the different training stations.

UNIT XI-1

BAKE WORK STATION

SUBJECT: Desserts

TASKS:
22. Follow standard procedures for preparing a variety of foods.
23. Evaluate the quality of foods prepared.

OBJECTIVES: When you finish this lesson, you should be able to
a. describe procedures to be used in the preparation of quality baked foods
b. identify standards for quality baked food products.

REFERENCE: Lewis, Dora S.; Peckham, Gladys, C.; and Hovey, Helen S. *Family Meals and Hospitality.* New York, New York: Macmillan Publishing Co., Inc., 1972. pp. 178-184; 351-357.

Many people feel that a meal without a dessert is like a sentence without a period–unfinished! Foods used for desserts are usually sweet, and the possibilities are unlimited. Cakes, cookies, and pastries are the most common desserts, but many lighter desserts are also served. A dessert should complement the meal it follows, both in flavor and degree of heaviness. For example, if a heavy meal is served, a lighter dessert would be suitable.

FRUIT

One of the most colorful and simplest desserts is fruit. Nothing is more appealing than a bowl of fresh fruit which is in season and reasonably priced. European restaurants often provide cheeses to eat with fruit.

Melons can be served in chilled wedges or in balls with or without ice cream. Fruit cups or compotes contain a combination of fruits and berries. Sections of citrus fruits can be used in combination with bananas, apples, grapes, or other fruits. Fresh pineapple is very attractive and can be used in a variety of ways. When berries are in season, they can be added to fruit salads or used alone. Ambrosia, a Southern dessert, is made from sliced oranges and grated coconut.

After some fruits such as apples and bananas are cut, their surfaces turn dark when exposed to air due to oxidation. Pouring an ascorbic acid solution, such as a citrus juice, over the cut surface helps prevent this darkening. Commercial products are also available for this.

PUDDINGS AND CUSTARDS

Puddings and custards are used frequently as desserts in food service establishments because they are economical and require little preparation time. A wide variety of desserts can be made from basic pudding and custard recipes.

Starch Puddings

Vanilla and chocolate are the favorite flavors for this dessert. Cornstarch or tapioca usually is used for thickening. Puddings should be light and smooth-textured with no starchy taste. Beaten egg whites or whipped cream may be added to make a fluffy pudding. Care should be taken in cooking to prevent lumps. This can be done by separating the cornstarch and tapioca grains with cold liquid or by mixing the dry starch with the sugar or cocoa ingredients before the milk is added to the mixture. Cook over low direct heat, stirring constantly.

Steamed or Baked Puddings

Both of these puddings are cake-like in appearance. Rice pudding and bread pudding are examples of this type of dessert. They are served often with a dessert sauce, such as caramel, fruit, or chocolate.

Custards

Generally, custards contain more eggs than puddings. The eggs are used to thicken the mixture. Most custards are baked in the oven or steamed over water on top of the range. Both starch puddings and custards usually are prepared from a purchased mix.

Mousses

Usually mousses are made of sweetened and flavored whipped cream and gelatin or pudding. They are quite rich and heavy. Mousses may be frozen. But unlike ice cream, mousses are never stirred while being frozen.

Parfaits

Parfaits are similar to mousses in richness or cream content, but parfaits are made by pouring a sugar syrup over either beaten egg yolks or whites, or ice cream; then whipped cream and flavoring are added. A parfait may be frozen without stirring.

GELATIN DESSERTS

Gelatin is a versatile base for a number of desserts. Plain gelatin can be used and given variety by pouring different colored layers into a dish or glass to achieve a rainbow effect. Whipped cream or whipped toppings may be folded into a gelatin mixture before it has set. Variety also can be attained by the addition of fruits to the gelatin. Spanish creams may be made by partly setting a custard base with gelatin, then folding the custard into beaten egg whites. Bavarian creams are made with a sauce of fruit juice and whipped cream folded into stiffly beaten egg whites, or softened ice cream folded into a whipped commercial gelatin mix.

FROZEN DESSERTS

Ice cream heads the list as one of the most popular types of dessert. Frozen desserts can be used successfully after any type of meal because of a wide range of possibilities from very light to quite heavy. Some examples of frozen desserts are listed below.

1. *Ices and Frappes* – A sugar syrup flavored with fruit juice. The texture of a frappé differs from an ice, which is more solidly frozen.
2. *Sherbets* – Very similar to ices, but sherbets usually contain milk, gelatin, or beaten egg white, and therefore are firmer and finer in texture than ices.
3. *Ice Cream* – Cream is one of the main ingredients; thus, ice cream is heavier and has a richer flavor than sherbet.

If the food service employee is responsible for the preparation of such frozen desserts as sundaes or banana splits, the employee should take care to follow the employer's directions.

FRIED DESSERTS

Fried desserts such as fritters and fried pies are very popular. Most fritters are made of a batter flavored with fruit, then deep-fried. Fried pies are made with pastry dough which is rolled flat. The desired filling is placed between two pieces of dough, the edges are sealed, and the pies are deep-fried. Most fried pies are purchased frozen and fried on-the-spot. To make fried pies "from scratch" requires a great deal of preparation time.

CREPES

The batter for these very thin dessert pancakes is almost watery in consistency, and no leavening agent is used. Crepes are cooked in a manner similar to pancakes. Before serving, crepes may be filled with a sweet filling, rolled up, and sprinkled with powdered sugar.

With a little imagination and extra planning, health care and food service operations can leave very pleasant impressions with patients and patrons by concluding their meals with delicious, attractive desserts.

QUESTIONS:

1. Prevent the cut surface of apples and bananas from turning dark by ____________________
   ____.
2. Prevent lumps when preparing starch puddings by ____________________
   ____ or
   ____.
3. The definition of a fritter is ____________________
   ____.
4. List three reasons why puddings and custards are used frequently as desserts in food service establishments.
   a.
   b.
   c.
5. List three qualities of a good gelatin dessert.
   a.
   b.
   c.
6. Describe how to prepare three variations of gelatin desserts.
   a.
   b.
   c.

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7. Describe the batter consistency and the cooking procedure for crepes.

8. How does a sherbet differ from an ice or frappé?

9. What are the following gelatin desserts made of?
   a. Simple gel –

   b. Whips –

   c. Snows –

   d. Creams –

   e. Chiffons –

ASSIGNMENT:

I. Note examples of various desserts—in magazines, or those available when you eat in food service establishments. Decide if these are variations of basic desserts or if they require elaborate preparation.

GROUP WORK:

I. At an FHA/HERO meeting demonstrate the correct procedures for preparing the different desserts discussed in this unit, or invite a cook or chef to give demonstrations on desserts and share favorite recipes.

UNIT XI-2

BAKE WORK STATION

SUBJECT: Cakes, Cookies, and Pastries

TASKS:
22. Follow standard procedures for preparing a variety of foods.
23. Evaluate the quality of foods prepared.

OBJECTIVES: When you finish this lesson, you should be able to
- a. describe procedures to be used in the preparation of quality baked foods
- b. identify standards for quality baked food products.

REFERENCE: Lewis, Dora S.; Peckham, Gladys C.; and Hovey, Helen S. *Family Meals and Hospitality*. New York, New York: Macmillan Publishing Co., Inc., 1972. pp. 321-330; 334-351.

Many food services use commercially prepared dessert mixes or desserts. However, an understanding of good quality in these products will be helpful.

QUESTIONS:

1. Cookie dough usually contains more ______________________________ and less ______________________________ than cake batter.

2. The best temperature for mixing shortening into flour for pie doughs made by the conventional method is ____________________.

3. a. Describe the differences in the conventional method and quick method of mixing a butter cake.

   b. Is it possible to use either method for a particular butter cake recipe? Why or why not?

4. a. What is the result of using a smaller size cake pan than called for in a recipe?

   b. A larger size pan than called for?

5. Tell a disadvantage of preparing a cake using the muffin method.

6. List three characteristics of a good butter cake.
   a.
   b.
   c.

7. Describe procedures for obtaining a flaky, tender, light pie crust.

8. Jan's supervisor said the pie crust she made was of high quality. Describe a quality pie crust.
   a.
   b.
   c.
   d.
   e.

9. In double-crust pies there is a tendency for the filling to bubble while cooking and to spill in the oven. How can this be prevented?

10. In many food service operations, single-crust cream pies are not filled until just before use. Explain why this is done.

11. Name four toppings for pies.
    a.
    b.
    c.
    d.

12. If special tart tins are not available, what may be used to make individual shells?

13. Place an X beside the type of cookies that can be prepared easily and quickly in quantity food production.
    ______ a. Drop cookies
    ______ b. Pressed cookies
    ______ c. Rolled cookies
    ______ d. Bar cookies
    ______ e. Refrigerator cookies

14. Give the baking temperature and time for:

    ______________________________ a. Single-crust pies

    ______________________________ b. Fruit pies

    ______________________________ c. Crumb crust

15. A cake pan used for an angel food cake should be prepared by lightly greasing and flouring before using.
    ______ a. True
    ______ b. False

ASSIGNMENT:

I. Compare the methods for making cakes, cookies, and pies at your training station with the procedures described in the reference. Identify ways you can improve how you prepare these products.

GROUP WORK:

I. View filmstrips on the commercial preparation of cakes, cookies, and pies. Discuss and compile a list of the similarities and differences of techniques shown in the filmstrip and those used at your training station. Turn this list in to your teacher.

II. Work in small groups to prepare posters illustrating the accepted standards for cakes, cookies, and pies. Display the posters on a bulletin board.

UNIT XI-3

BAKE WORK STATION

SUBJECT:	Breads
TASKS:	22. Follow standard procedures for preparing a variety of foods. 23. Evaluate the quality of foods prepared.
OBJECTIVES:	When you finish this lesson, you should be able to a. explain functions of basic ingredients in baked products b. describe procedures for preparing quick bread and yeast bread products c. identify the characteristics of standard yeast bread and quick bread products.
REFERENCE:	Lewis, Dora S.; Peckham, Gladys C.; and Hovey, Helen S. *Family Meals and Hospitality.* New York, New York: Macmillan Publishing Co., Inc., 1972. pp. 169-177; 312-320.

Have you ever wondered what is involved in creating delicious baked foods? Often a food service operation is remembered for the type and quality of its hot breads, cakes, or pastries.

Most baked products are made with basically the same ingredients. Before studying specific products, you should have an understanding of the basic ingredients and how each contributes to the quality of the finished product. Variations result from slight changes in ingredients and from different methods of preparation. Carefully follow the recipe when preparing a bakery product. Measure ingredients as directed. Follow mixing procedures exactly. Recipes are often similar, but slight variations may be the secret to achieving the desired results.

Most food services use convenience products, such as mixes, frozen bread, or brown and serve rolls. These give high-quality results *if directions are followed carefully.* Read instructions on the package and double-check with your supervisor.

QUICK BREADS

In mixing quick breads, mix the ingredients quickly, only enough to blend. Too much stirring toughens the bread and creates a coarse texture. If the recipe directs you to add wet and dry ingredients alternately, stir after each addition. When alternating wet and dry ingredients, add dry ingredients first and wet ingredients last to prevent curdling the batter.

The leavening agent in quick breads is usually a chemical leavener. However, steam, air, or yeast can be used. Slight variations in mixing, panning, and baking quick breads can result in products much more different than you would expect.

The characteristics of well-prepared quick breads are listed below.

Product	*Outside Characteristics*	*Inside Characteristics*
Rolled Biscuits	*Shape*—even, straight sides; and level tops *Size*—uniform; double the size of unbaked biscuits *Color*—evenly browned tops and bottoms with lighter sides; no yellow or brown spots *Crust*—tender, fairly smooth, free from excess flour	*Color*—creamy white; no yellow or brown spots *Grain*—flaky, pulls apart in layers *Texture*—tender, slightly moist, light *Flavor*—good flavor
Plain Muffins and Quick Bread	*Shape*—symmetrical, rounded tops *Size*—uniform and large in relation to weight *Color*—golden brown *Crust*—tender, pebbly surface; shiny	*Color*—depends on kind of flour used, no streaks *Grain*—coarse, even cells; no tunnels *Texture*—tender, slightly moist, light *Flavor*—mild-flavored, slightly sweet
Cornmeal Muffins and Corn Bread	*Shape*—no peaks; medium rim; slightly rounded top as for muffins *Size*—all uniform *Color*—golden brown *Crust*—slightly cracked, somewhat rough	*Color*—yellow or white, without large pieces of cornmeal *Grain*—round, even, slightly open cells *Texture*—crisp, tender, slightly moist *Flavor*—pleasing, corn-like
Pancakes	*Shape*—even and round *Size*—uniform *Color*—evenly brown on both sides *Crust*—delicately pitted surface	*Color*—even throughout *Grain*—fine, even cells with no tunnels *Texture*—light, porous, not sticky *Flavor*—well-blended, pleasing
Waffles	*Shape*—regular and in the shape of the waffle iron grids used *Size*—uniform *Color*—even, golden brown *Crust*—crisp	*Color*—even throughout *Grain*—fine, thin-walled, evenly distributed *Texture*—light, tender, slightly moist *Flavor*—mild, pleasing
Popovers	*Shape*—well-popped *Size*—large in relation to weight *Color*—golden brown *Crust*—thick, crusty wall; tender and crisp	*Texture*—hollow interior, slightly moist *Flavor*—pleasing

YEAST BREADS

The most familiar bread products are yeast breads, such as loaf breads, rolls, cinnamon rolls, and coffee cakes. The basic ingredients in yeast breads are flour, liquids, fat, sugar, and yeast.

The *leavening* action in yeast breads is a fairly slow process which uses the carbon dioxide gas produced by the yeast as it feeds on starches or sugars to raise the baked product. The three most common methods for preparing yeast breads are listed below.

1. *Straight Dough Method* – The ingredients are combined, kneaded, and allowed to rise. After rising, the dough is punched down, portioned, and allowed to rest. The dough is then shaped, panned, proofed, and baked.
2. *Sponge Method* – Yeast is combined with part of the liquid, flour, and sugar. The mixture is covered and set in a warm place until it becomes light and bubbly or spongy. Then the fat, additional flour, sugar, and salt are added to the sponge to make a stiff dough. After this step, the procedure is the same as for the straight dough method.
3. *Batter or No-Knead Method* – As the name implies, the kneading and shaping steps are omitted. Mixing is faster because bread is made from a batter rather than a dough. The texture of products made by this method is not as fine and uniform as that of bread made from a kneaded dough. Products made by the no-knead method have a higher moisture content. This method is frequently used in the preparation of dinner rolls.

The basic steps in making yeast bread are as follows:

1. *Mixing* – Ingredients are combined according to the order listed in the recipe.
2. *Kneading* – The ball of dough is worked with the hands or by machine to develop the gluten, which causes the elasticity of the dough. The dough is kneaded for 5 to 8 minutes, or until it becomes smooth and satiny in appearance.
3. *Rising* – The dough is placed in a warm, moist place to allow the yeast to produce carbon dioxide gas to leaven the product.
4. *Punching* – When dough has risen sufficiently, it is tested by inserting two fingers into the mixture. If holes close very slowly, dough is ready for punching. Using the fist, pound the center of mixture and fold the outer edges into the center. Punch for 2 to 4 minutes; then turn inside out. This process distributes the yeast better and aids in the development of gluten.
5. *Scaling* – Dough is weighed into equal portions.
6. *Rounding* – Weighed portions are made into balls.
7. *Resting* – Dough rests for approximately 10 minutes to relax the gluten and make it easier for handling.
8. *Molding* – Dough is formed into desired shape (rolls, loaves, cinnamon rolls, etc.).
9. *Panning* – Dough is placed in a greased pan (seam side down in the case of loaves).
10. *Proofing* – Pans are placed in a proof box which is warm and humid. Dough is allowed to double in size. When fully proofed, dough slowly fills out small dents made by the fingers and is ready to be baked.

Yeast Bread Evaluation

Product	*Outside Characteristics*	*Inside Characteristics*
Yeast Breads	*Shape*—rounded top, symmetrical *Size*—good volume for weight *Color*—even, golden brown; not spotted *Crust*—tender and crisp without cracks; uniform, moderate thickness	*Color*—even, without streaks or spots *Grain*—evenly distributed *Texture*—soft, moist, springy *Flavor*—good flavor typical of type of flour used; without excessive yeasty taste.

Doughnuts

Doughnuts are very popular. People like doughnuts with coffee, tea, milk, or hot chocolate. They also like doughnuts for breakfasts, snacks, desserts, coffee breaks, and special occasions. Glazed, plain, jelly, cream-filled, iced, or sugar-coated doughnuts are but a few of the types available in restaurants, coffee shops, bakeries, supermarkets, and special doughnut shops.

A doughnut, "the circle with the hole in the middle," can be the yeast-raised type or the cake type. Cake-type doughnuts are raised primarily by the action of baking powder. Both types of doughnuts are mixed similarly to other quick and yeast-baked goods. However, unlike other baked goods which are baked in the oven, doughnuts are deep-fried in heated vegetable oil or fat.

The basic steps for making doughnuts are as follows:

1. Mix dough using the recipes and procedures of the establishment where you are employed.
2. Check that thermostat of frying tank is set at correct temperature; *do not* overheat.
3. Dump dough into doughnut cutter machine. Set lever to control amount of dough the doughnut cutter will portion to frying tank. (In some establishments, doughnuts may be rolled and cut by hand.)
4. Depress trigger on doughnut cutter to eject individual doughnuts into hot grease.
5. Turn doughnuts with a stick while they are frying to allow even browning on both sides.
6. Lift wire tray of fried doughnuts from frying tank.
7. Place in glazing tank. Slide trough of glazing syrup over warm doughnuts and allow doughnuts to drain. (Doughnuts may be glazed also with a hand dipper.)
8. Allow doughnuts to cool completely before filling. Use pastry bag and tube to fill doughnuts with jelly, jam, or cream fillings.
9. Finish doughnuts by dusting with confectioner's sugar, rolling in cinnamon sugar, icing, sprinkling with nuts, etc.

QUESTIONS:

1. ______________ and ______________ are added to flour to make a self-rising flour.

2. The substance used to make foods light and porous is called a ______________.

3. Yeast dough is ______________ to distribute the yeast, remove excess carbon dioxide, and improve the texture of the bread.

4. Yeast dough is ______________ to distribute the yeast and aid in the development of gluten.

5. Dough is fully proofed when ______________.

6. The two types of doughnuts are ______________ and ______________.

7. What is the difference between a quick bread and a yeast bread?

8. Describe the consistency of the three mixtures from which quick breads are made, and give an example of a product from each mixture.
   a.
   b.
   c.

9. How is gluten formed? What is its function in a baked product?

10. List four leavening agents used in quick breads.
    a.
    b.
    c.
    d.

11. Explain how steam acts as a leavening agent in quick bread products.

12. What is the effect of overmixing a quick bread product?

13. When the recipe for a quick bread product directs you to "add wet and dry ingredients alternately," what is one important point to remember?

14. Why must all-purpose or general-use flour be used in yeast products?

15. How does yeast leaven a yeast bread product?

16. Describe the internal appearance of a good yeast bread product.

17. a. What ingredients furnish food for the growth of the yeast?

    b. List two other contributions of one of the above ingredients to the quality of the product.
    (1)
    (2)

In Items 19-21, place an X in the blank to the left of the correct answer(s) for each question.

18. Which of these methods incorporate air into a product?
    _____ a. Beating egg whites
    _____ b. Sifting sugar
    _____ c. Beating a batter or dough
    _____ d. Creaming shortening

19. Which of the following ingredients provide tenderness in a baked product?
    _____ a. Fat
    _____ b. Salt
    _____ c. Sugar
    _____ d. Starch

20. Which of the following are desirable characteristics of the external color and crust of yeast bread?
    _____ a. Tender and crisp
    _____ b. Dark brown
    _____ c. Moderate thickness
    _____ d. Even color, not spotted
    _____ e. A ragged, open break

ASSIGNMENTS:

I. Make a chart of bread products used at your training station. Include the name of the product, the type of bread it is, the preparation required, the way it is served, the storage needed, and important points in its preparation and use.

II. If more than one method is used to prepare yeast bread products at your training station, using the characteristics listed in the Yeast Bread Evaluation, compare and contrast the quality of products made by the straight dough method with similar products made by another method.

GROUP WORK:

I. Form small groups to share and discuss the different types of yeast bread and quick bread products and the preparation methods used in your training stations. Obtain samples of breads served at your training station if possible.

II. View and then discuss a film on the process of making bread, from the harvesting of the grain to the baking of a bread product.

UNIT XI-4

BAKE WORK STATION

SUBJECT: Icings and Decorations

TASKS:
22. Follow standard procedures for preparing a variety of foods.
23. Evaluate the quality of foods prepared.

OBJECTIVES: When you finish this lesson, you should be able to
a. describe techniques to be used in decorating baked products
b. identify characteristics of quality decorated baked products.

REFERENCE: Lewis, Dora S.; Peckham, Gladys C.; and Hovey, Helen S. *Family Meals and Hospitality*. New York, New York: MacMillan Publishing Co., Inc., 1972. pp. 331-334.

Pretty and decorative icings enhance the appearance of baked goods and increase the palatability and salability of many baked items. Icings also aid in retaining the moisture in baked items.

It takes practice and patience to become skilled in decorating baked goods. The entry-level employee needs to know the basic types of icings, the methods of preparing icing, and the basic techniques used in decorating baked goods. Advanced decorating techniques can be learned in classes or on the job. The types of icings and their preparation methods are discussed in the reading assignment.

BASIC ICINGS USED IN CAKE DECORATING

The ability to use a variety of icings properly is important to a successful career in cake decorating. The following chart illustrates some of the basic uses of the various icings used in decorating baked goods.

Icing	*Use*	*Storage*
Fudge (White or Chocolate)	Fillings; on cupcakes, layer cakes, sandwich cakes, Genoese sponge cakes, Madeira cakes, and very light fruitcakes.	Place in containers, cover with one teaspoon of water and store in refrigerator.
Butter cream	Fillings; icing on layer cakes, Madeira cakes, sandwich cakes, sponge cakes; borders and some flowers.	Store in large jar or bowl, cover with light plastic wrap such as wax paper. Store in cool place (must come to room temperature before using).
Fondant	Pouring; dipping; a base for royal icing.	Store in airtight container until needed.
Flat (Plain Water Icing)	Coffee cakes, Danish pastries, hot cross buns, etc.	Store in covered container. (Heat as needed.)

Icing	*Use*	*Storage*
Boiled	Icing on cakes, cupcakes, (Apply generously and leave in peaks.); piping and stringwork.	Make only desired amount as needed (breaks down if stored overnight).
Marshmallow	Cakes, cupcakes (Apply generously and leave in peaks on cake).	Use immediately after mixing.
Glacé	Yeast buns, sponge cakes, center of cupcakes, light fruitcakes, Victorian sandwiches.	Store in airtight container (must be reheated before use).
Marzipan (Almond Paste, Almond Icing)	Base for royal icing; molding flowers and decorations; topping for cookies and cakes.	Store in airtight containers after wrapping in wax paper (even small pieces can be useful for molding).
Royal (Decorating Icing)	Flower making, cake dummies, lace pieces.	Store in airtight container till needed (must be beaten before each use).

CONSISTENCY OF ICING

The correct icing *consistency* (degree of firmness) is very important when you are decorating baked goods. The basic decorator icing is smooth and stiff, but the consistency should vary for each decorating technique. An icing that is too soft will result in flowers with drooping petals and borders with no design. On the other hand, uniform writing must be done with a soft icing or the result will be an inconsistent scrawl with lumps and skipped spaces. An even softer icing should be used for covering the surface of the cake.

To test the icing for the correct consistency, place a spatula in the bowl of icing and raise the spatula as if to form a peak. The peaking of the icing shows its consistency. The following chart will be helpful in determining the consistency of decorator icing.

Icing Consistency	*Description*
Stiff	Forms peaks of one inch or more
Medium	Forms peaks of less than one inch
Thin	Flows easily from decorator tube

If the icing prepared is too stiff for surface work, add slightly beaten egg whites, or less than one tablespoon hot water to thin the icing. Check the consistency of the icing and add more egg whites or hot water if needed. For icing that is too soft, three or four tablespoons of confectioner's sugar can be added while beating the mixture. Test the consistency and add more sugar if necessary.

The guidelines for obtaining the needed consistency of icing vary with dietary or food service establishments, so employees should follow the procedures used where they are employed. Many food services use commercial mixes and instructions will vary.

USE OF COLOR IN CAKE DECORATING

As a beginning cake decorator, remember that it is better to use too little color rather than too much color. Too much color will result in dark icing, which will make the cake look garish and cheap. Baked goods decorated in delicate pastel shades are more pleasing to most people.

In decorating cakes, the lighter colors are best for backgrounds. The deeper, brighter colors can be used then for flowers and other individual decorations.

The food colorings used in decorating cakes are available in liquid and paste forms. Paste food coloring comes in a variety of colors and is usually more expensive than liquid food coloring. Liquid food coloring is available commercially in many colors. Liquid food coloring is also available in the four basic colors–red, yellow, blue, and green. By combining these colors, many colors can be made. For example, mix red and yellow for orange; yellow, green, and red for brown; red and blue for violet; green and yellow for lime–the combinations and shades are endless. When mixing colors, remember a little color goes a long way. It is best to add a small amount of color at a time until the desired color is reached. Dark colors should be mixed one to two hours before using to give enough time for them to reach their true color. These dark colors continue to darken several hours after mixing.

As it is hard to duplicate shades, it is important to mix enough of one color to complete the decorations desired. It will take practice, but in time you will know the approximate amount of icing you will need for flowers, borders, and other decorations.

An airbrush spray gun will save both time and effort when a large number of made-ahead decorations of the same color are needed. Fill the spray gun with water tinted with food coloring and spray-mist the decorations. The result will be uniform decorations without the worry of running out of the needed color. When the decorations are dry, they can be arranged on the cake.

ICING THE CAKE

The smooth surface icing is very important to the finished product of the decorated cake. Before icing the cake, allow the cake to cool and brush all loose crumbs from the cake.

The top of the cake must be level, or the appearance of the finished product will be ruined. If the top of the cake is lopsided or has a raised center, trim the protruding part off the cake with the serrated edge of the knife. It is best to use the knife in a saw-like motion when trimming the cake. The cake will be easier to trim if it has been frozen first.

When icing the cake, place strips of wax paper under the edges of the cake. The wax paper will catch drips of icing while you are working, and is easily removed when you have finished icing the cake. Ice the sides of a loaf, tube, or sheet cake first. Working from the bottom to the top of the cake, use long strokes to spread icing on the sides of the cake. Leave the icing on the edge of the cake slightly higher than the top surface of the cake. Heap icing on top of the cake and spread to the edge of the cake. Use a spatula dipped in hot water to smooth the top of the cake. Turn the cake in a circle as the spatula (with the flat side down) rests lightly on the cake top. Dip the spatula in hot water again and follow the same procedure for smoothing the sides of the cake. The cake will now have a smooth surface for decorating. If you do not plan to add decorations to the cake surface, follow the procedure for icing the top and sides of the cake but do not smooth the icing. The swirls and peaks will be decorative.

Before icing a layer cake, make certain the layers are level. If there is a difference in the size of layers, use the thicker level for the bottom layer of the cake. Invert the layer onto a cake plate, place strips of wax paper under the edges of the cake, and ice the top of the layer. Spread the icing almost to the edge of the layer. If the icing is soft, spread it to one inch from the edge. With the top side up, place the second layer on the bottom layer. Fill any gaps between the layers with icing. Ice the side and top of the layer cake using procedures for icing a loaf, tube, or sheet cake.

Allow the icing to set slightly before removing the strips of wax paper. Removing the strips immediately may disturb the icing.

CAKE DECORATING TOOLS

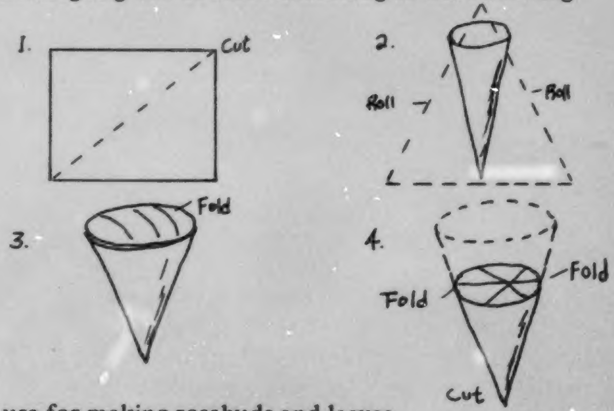
Cake decorating has specially designed tools to aid in creating interesting and appealing masterpieces of beauty and craftsmanship. Much practice is needed to become adept at using the cake decorating tools.

Decorating Bags

The *decorating bag* (or cone) holds the decorator icing and is used with tubes for making flowers, borders, writing, and other cake decorations. The decorating bag may be purchased in reuseable cloth or plastic form, or it can be made from parchment paper. Ready-made decorating bags are available in several styles. In one type the tube for icing is slipped into the decorating bag, filled with icing and used. Another style has a small attachment called a *coupler* which allows different tubes to be fastened to the same decorating bag. Some have a coupler and tube which can be adjusted to any decorating bag. Some ready-made decorating tubes are transparent, which allows you to see the icing as you work.

Parchment decorating bags are especially helpful when several colors are needed to decorate a cake. Many parchment bags can be purchased pre-cut. Parchment bags usually are discarded after use. If you make yours, do not make more bags than the amount needed for immediate use because storage may flatten the points. A parchment decorating bag can be made according to the following directions:

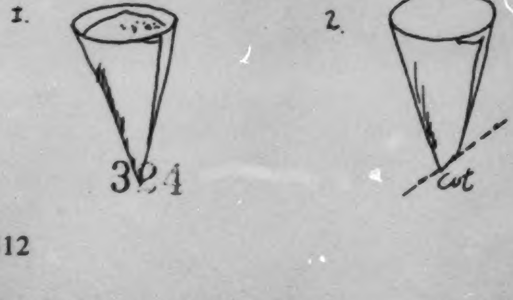
1. Cut square of parchment paper in half diagonally to form a triangle.
2. Roll the triangle to form a cone.
3. Fold edge of paper into the bag.
4. Cut a small hole about ¾" at bottom of bag with scissors. Drop the tube you plan to use into the bag. Fill the bag half-full of icing. Fold over top part to seal. Bag is ready to use.



The parchment decorating bag can also be cut to use for making rosebuds and leaves.

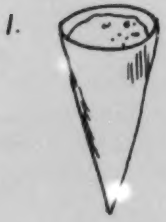
Decorating bag for rosebuds:

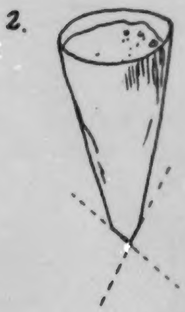
1. Make and fill a parchment paper bag.
2. Cut one side of the point only. Cut ½" from the center point to the outside of the bag.



Decorating bag for leaves:

1. Make and fill a parchment paper bag.
2. Cut both sides of the bag's point equally. Cut ¼" from the center point to the outside.



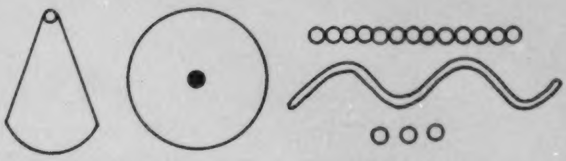


Decorating Tubes

Decorating tubes are metal, cone-shaped tubes with an open end used to form icing decorations. The tubes are available in a variety of designs and sizes. Commonly used decorating tubes include:

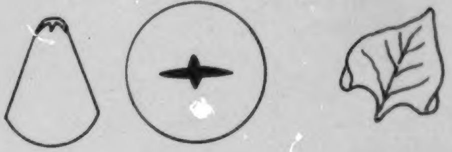
Plain or Round Tube

The opening is smooth and round. Use for lettering, dots, stems, stringwork, and piping.



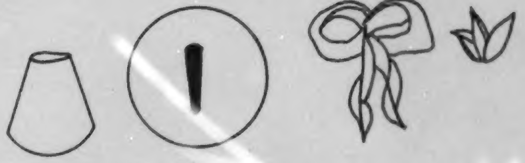
Leaf Tube

The opening is V-shaped. Use for long, thin, ruffled, serrated, fern, stand-up, or plain leaves.



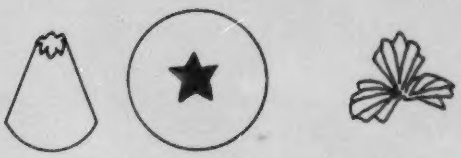
Petal or Rose Tube

The opening is a long slit that is very narrow at one end, wide at the other. Use for various types of flowers, streamers, and bows.



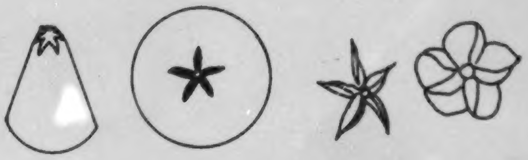
Star Tube

The opening is star-shaped. Use for stars, shells, rosettes, zigzags, scrolls, and fleur-de-lis designs.



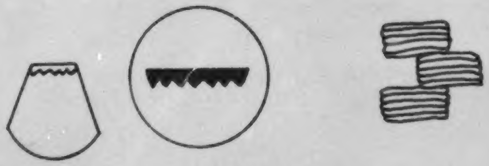
Drop Flower Tube

The openings look like a flower. The number of openings is the number of petals each flower will have. Use for swirl flowers and star flowers.

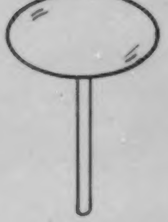


Basket Weave Tube

The opening is long with a smooth side and ribbed side. Use for making a basket weave design.



Flower or Icing Nail



Flower or icing nails are made of plastic or metal, and are used when making individual icing flowers. The nail is turned as the petals of the flower are made on foil or wax paper placed on the wide surface of the nail. The surface of the nail may be flat, round, or concave depending on the depth of the flower desired.

USING CAKE DECORATING TOOLS

Although it is essential to practice using the cake decorating tools, the following guides should make learning easier. Grip the decorating bag close to the top with the twisted end between your thumb and fingers and hold the bag in the correct position in order to make a good decoration. You will find it is best to hold the decorating bag either perpendicular to the cake surface (about a 90 degree angle) or at a slant to the surface (about a 45 degree angle). The amount of pressure used to squeeze the decorating bag and the rhythmic movement are important to the uniformity and exactness of the cake decorations. When too much pressure is used, the decoration will look wavy or wobbly. The flow of icing will break when there is too little pressure. Decorate left to right if you are right-handed, and right to left if you are left-handed. All lettering and piping should be iced in the direction you normally write. As you practice you will learn the techniques for pressures, movements, and positions that work best for you.

Practice making cake decorations on a practice board or on the back of a cookie sheet. The icing used for practice can be put in a bowl, beaten, and used again. Keep the bowl of icing tightly covered with a damp cloth to prevent the icing from drying out. Remember that it will take a lot of practice to become proficient at making cake decorations.

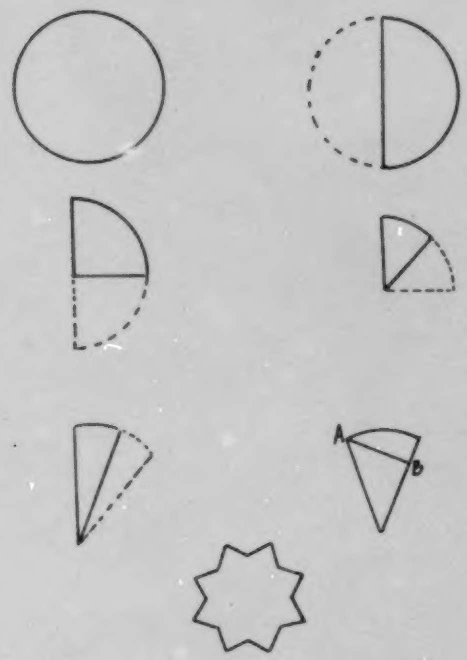
PIPING TECHNIQUES

Piping is the technique of squeezing icing through the tube of a decorating bag to make borders, flowers, lettering, and other cake decorations. Piping designs range from the simplest to the most intricate. As a beginning cake decorator, practice piping the more complex designs on a practice board or on the back of a cookie sheet before piping the design on a cake.

The piping of figures, birds, and scenes is also a popular cake decorating technique. One method is to use the decorating bag to squeeze out a simple stick outline drawing on the cake surface. The various areas of the drawing are then built up or filled in with icing.

Another method for piping figures and scenes is to draw a pattern on greaseproof paper. Cover the pattern with thin wax paper that you can see through. Use the decorating bag to trace the outline of the pattern on the wax paper and then fill in the design. Let the decoration dry, carefully remove the decorations from the wax paper, and place in the correct position on the cake.

As your skills in cake decorating increase, you will want to try more intricate piping methods. It takes time and thought to plan the piping for the more complex designs. Plan piping designs on greaseproof paper cut the same size as the top of the cake. The pattern cut from the paper can be folded, cut, and put together in various ways to aid in planning a design. In the following illustration is one method of using a greaseproof paper pattern cut the size of a round cake.



Cut the greaseproof paper pattern the size of the cake surface.

Fold the pattern in half.

Fold the pattern in half again. (Will be ¼ size)

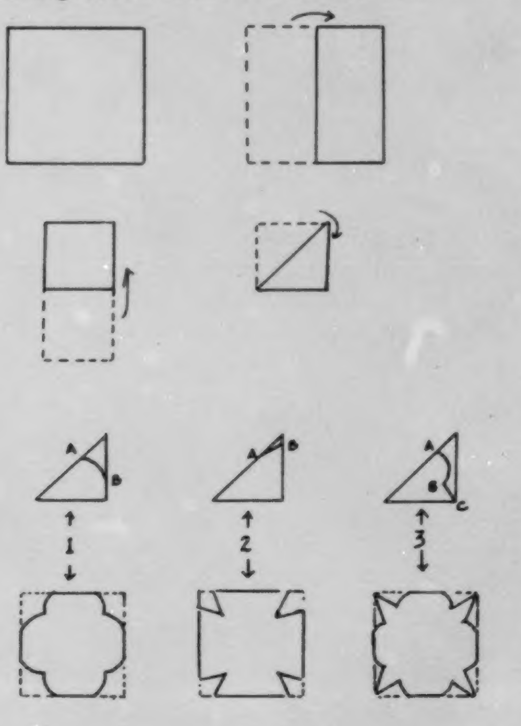
Fold the pattern in half again. (Will be 1/8 size)

Fold the pattern in half again. (Will be 1/16 size)

Mark a dot at A, which will be at one corner of the curved edge. Draw a straight line from A to the side of the triangle which is illustrated as B. Cut along the line you have just drawn.

Unfold, and the piping pattern design will have eight points.

The same procedures can be used for other cake surfaces. A square cake surface is illustrated:



Cut the greaseproof paper pattern the size of the cake surface.

Fold the pattern in half.

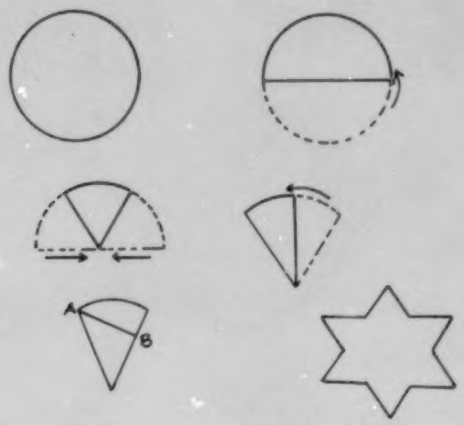
Fold the pattern in half again. (Will be ¼ size)

Fold the pattern in half again to form triangle. Keep point even. (Will be 1/8 size)

Mark with a pencil a line to cut on to achieve the desired pattern. Illustrations 1 and 2 show designs from two different markings–simple curve and angle marking.

The pattern for the piping design shown in Illustration 3 was folded into eighths and the line for cutting was drawn with a curve and an angle.

Experiment by changing the number of folds in your pattern. For example, to make a six-point piping pattern:



Cut a greaseproof paper pattern the size of cake surface.

Fold the pattern in half.

Fold into thirds from center to form a triangle.

Fold in half again.

Mark cutting line from A to B and cut.

Unfold, and piping design pattern will have six points.

Using different folds, various angles, curves (both convex and concave), deep cuts; and combining patterns will give you an endless variety of piping designs. Remember that square designs can be used on round cakes, and vice versa.

When you have decided on the paper pattern you want to use for a piping design, make a cardboard pattern. Place the paper pattern on cardboard, outline the pattern, and cut out the design. Cut slanted notches in the edge of the pattern, bend up the small section between notches. (See Figure 1.) This will act as a handle in lifting the cardboard pattern from the cake surface.

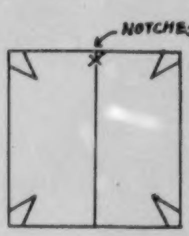


FIGURE 1

To use the cardboard pattern, place it in the correct position on the cake and pipe around the pattern with icing. If the icing is close to the color of the surface to be decorated, it is easier to correct mistakes. Lift the piping mistake with a knife and repipe the design. When you have piped around the pattern, carefully remove the cardboard pattern. Using the appropriate color of icing, add other lines and details freehand over the piping outline.

MOLDING AND MODELING TECHNIQUES

Molding and modeling decorations add another dimension to cake decorating and are done with either pastillage or marzipan. As with other cake decorating techniques, it will take practice and patience to become skilled at molding and modeling cake decorations.

Pastillage

Pastillage is a gum paste used for making flowers, candies, and other fancy decorative pieces. Recipes for pastillage vary, but the basic ingredients include gelatin, water, and confectioner's sugar.

Your hands, the surface you are working on, the rolling pin, and any models you are using must be dusted with cornstarch. Use only a small piece of the gum paste and work with your hands till it is smooth. Keep the rest of the gum paste covered to prevent it from drying out. When the gum paste you are working with is smooth, roll it out with a rolling pin. Place a pattern on the gum paste and cut around it with a sharp knife. Let the piece dry. If you are using a mold, the smooth gum paste is pushed lightly into a mold, removed, and placed to dry.

Let the pieces dry on a clean, hard surface, like glass, at room temperature. When the pieces are almost dry on the top side, turn so they can continue to dry. When completely dry arrange the pieces on the cake surface in the planned design.

Marzipan

Marzipan is an almond paste used as a foundation for royal icing in wedding cakes and birthday cakes. Marzipan is used also for molding miniature flowers, fruits, and other decorative pieces for cakes, cookies, petits fours, and other baked goods.

Marzipan, a mixture of ground almonds, egg whites, icing sugar, and flavoring, should have a stiff consistency. If too soft, it will be hard to handle.

Color the marzipan with food coloring, adding a tiny bit at a time. Knead to work the color in. Avoid over-kneading marzipan, as it will become greasy. Keep marzipan covered when not in use to prevent it from drying out.

To mold flowers, miniature fruits, or other shapes, roll some of the marzipan out on a board and cut into small pieces. All identical pieces should be measured the same to keep the size from varying. For example, to make small roses the same size, cut all pieces one-half inch or whatever size is needed. After cutting the pieces out, mold each piece into desired shape. The procedure for modeling the marzipan will be much the same as when you were a child and played with modeling clay or play dough. First, make a basic shape, such as small balls for apples or cylinders for bananas, etc., and then mold to the shape you need. To make flowers, start with a small cone shape for the center, add petals one at a time until desired shape is reached. Cut petals in a basic shape, such as round, square, or a strip, and shape into the type of petal needed for a specific flower.

Let the completed decorations dry on a clean, hard surface at room temperature before placing them on the cake. If the decorations must be stored before using, carefully place them on greaseproof paper or wax paper in a box to protect them from breaking.

RUN-OUT WORK

Run-out work is also called soft sugar work. Working on greaseproof or wax paper, outline the design with icing and then fill in with soft icing. Work fast to keep the outline icing from drying out. If the outline icing is dry when the filling icing is added, the piece is likely to break.

Let the pieces dry for several days in a warm place. Leave the pieces on the paper and store in an airtight container until needed, or place on cake.

LETTERING

Lettering adds beauty and a personal touch to the cake. The types of lettering used in icing cakes include script, printing, block letters, and double letters. Icing used for lettering should be of a thin consistency so it will flow easily. Spacing the lettering on the cake is very important, as a pretty cake will be ruined if there is not space to complete a word or message. Lettering is made of curved, straight, and slanted lines. To practice lettering, write the words or letters on greaseproof paper in the size to be used on the cake surface. Place the first and last letter of each word in position and then space other letters. For script writing, start with a letter in the middle and work both ways to complete the word in the space allowed on the cake surface. As a beginning cake decorator you may want to use a stencil for a lettering guide. Place the stencil on the cake, spread icing over the lettering guide, carefully remove the stencil, and the letters will be in place on the cake surface.

QUESTIONS:

1. A ______________________ should be used to spread the icing on a cake.
2. Use long strokes to spread icing on the sides of the cake and work from the ______________________ to the ______________________.
3. Squeezing icing through the tube of a decorating bag to make borders, flowers, letters, and other cake decorations is the technique of ______________________.
4. ______________________, ______________________, and ______________________ are used for molding and modeling cake decorations.
5. Explain how to test icing.
6. Why is it important that enough colored icing be made at one time?
7. List two types of lettering used in icing cakes.
   a.
   b.

In Items 8-11, match the icing consistency with its description. Place the letter of the icing consistency in the blank to the left of each description. Use each letter only once.

Description	*Icing Consistency*
_____ 8. Forms peaks of one inch of more	a. Thin
	b. Medium
_____ 9. Flows easily from decorator tube	c. Stiff
_____10. Forms peaks of less than one inch	

In Items 11-14, match the color with the food colorings which make the color. Place the letter of the color in the blank to the left of the food colorings. Use each letter only once.

Food Coloring Combination

_____11. Green, red, yellow

_____12. Green, yellow

_____13. Red, blue

_____14. Red, yellow

Color

a. Brown
b. Lime
c. Orange
d. Violet

In Items 15-20, match the decorating tube to the appropriate design. Place the letter of the decorating tube in the blank to the left of each design.

Design

_____15.

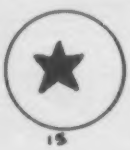
_____16.

_____17.

_____18.

_____19.

_____20.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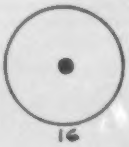
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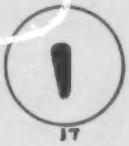
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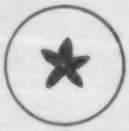
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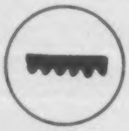
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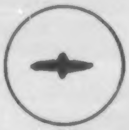
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Decorating Tube

a. Basket weave tube
b. Drop flower tube
c. Leaf tube
d. Petal or rose tube
e. Plain or round tube
f. Star tube

In Items 21-25, write in the blank provided T if the statement is true, and F if the statement is false.

_____21. Baked frosting can be made from thin candy bars.

_____22. Icing used for a filling should not be used to ice the sides and top of the cake.

_____23. Cream of tartar and corn syrup added to cooked icings prevent the formation of large crystals.

_____24. Seven-minute icing will become grainy if placed in freezer.

_____25. Confectioner's sugar frostings should not be placed in the freezer.

ASSIGNMENTS:

I. Prepare a flip chart illustrating the steps for decorating a cake.

II. Make a decorating bag out of parchment paper.

III. Prepare white decorating icing. With the icing you have prepared, practice the following color mixing techniques for cake decorations.
   a. Mixing icing with liquid food color.
   b. Color striping.
   c. Mixing icing with paste food color.
   d. Spatula striping.
   e. Using the liquid food colors -- red, yellow, green, and blue – make these colors: violet, peach, brown, lime, and strawberry.

IV. Design decorated cakes for your family for birthdays and holidays. Take pictures to share with your class.

GROUP WORK:

I. Work in small groups to prepare demonstration on preparing and decorating a cake for class or for an FHA/HERO meeting.

UNIT XII-1

CUSTOMER SERVICE TECHNIQUES

SUBJECT:	Opening, Closing, and Side Work Duties
TASKS:	24. Manage side stand efficiently. 25. Assist in setting up tray assembly line or cafeteria counter. 26. Arrange buffet table or soup and salad bar.
OBJECTIVES:	When you finish this lesson, you should be able to a. describe methods of keeping side stand heated and fully supplied b. fill and maintain condiment containers c. use correct method to fold napkins d. describe procedures for setting up tray assembly line or cafeteria counter e. identify factors influencing the arrangement of a buffet table or soup and salad bar.
REFERENCES:	Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 77; 212-214; 221-222. Weiss, Edith, and Weiss, Hal. *Catering Handbook.* New York, New York: Ahrens Publishing Co., Inc., 1971. pp. 108-112.

Side work refers to the duties a waiter or waitress must perform, other than serving guests, before and during the meal. At the end of a meal the dining area must be made ready for the next serving period. The duties included here may vary depending on the size of the business and the number of people employed.

STATION AND SIDE STAND DUTIES

Station

A *station* is the area of the dining room to which one has been assigned. The number and type of tables included in a station vary. Some stations may be smaller or easier to serve than others due to room arrangements. As a result, waitresses and waiters may be moved from one station to another on a rotation basis. In some restaurants, however, the "better" stations may be permanently assigned to the most professional employees.

When assigned to a station, the waiter or waitress must keep it stocked and ready for use. Condiment containers used on tables in your station should be kept clean and filled. These containers may include:

Salt and pepper shakers
Sugar bowls
Syrup dispensers
Ketchup, mustard, mayonnaise, jams and jellies, napkins, toothpicks, and straw dispensers

Check condiment containers frequently to be sure they are clean and filled. Wipe the outside of the containers with a damp cloth and then polish with a dry cloth.

Check sugar bowls for hard lumps of sugar which may indicate that a damp spoon was placed in them. Empty the contents, and have the bowl washed properly before refilling. If containers with screw tops are used, be sure the top is fastened securely and the spout is clean and unclogged.

Check the openings in salt and pepper shakers and unclog holes with a toothpick when needed. In humid areas, it may be necessary to put rice into salt shakers to prevent the salt from becoming damp.

Side Stand

A *side stand or service unit* is usually located near each station. The side stand is the serving and storage unit where the things needed for table service are kept. The side stand helps reduce the number of trips one must make to the kitchen and storage areas. One of your duties before meal service starts may be to stock your side stand with the necessary articles. If there is a warming unit in the side stand, check to see that it is working properly. A list of items frequently kept in a side stand appears on p. 77 in *Food Service Careers.*

Each time you go to your side stand, check it visually for the following;

Supplies that are getting low
Containers that need cleaning or refilling
Neat appearance

Notify dining room attendants of any supplies you need, so that they have time to replace the supplies. Remember that your side stand is usually in clear view of the guests and should be kept clean and neat.

Cut down on walking. Think ahead about things you need to do each time you go to the side stand or to the kitchen. If your supplies are very low, it may be faster for you to return with them from the kitchen after turning in an order.

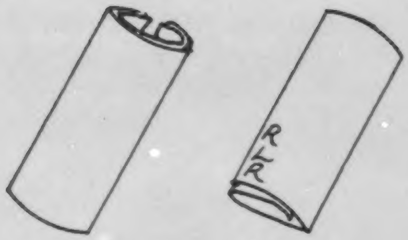
Napkins

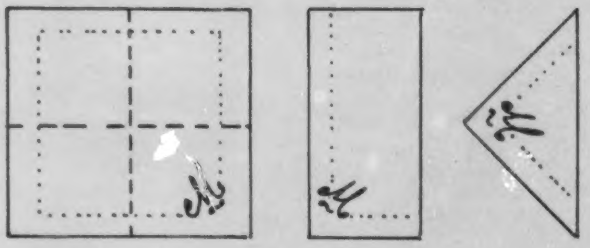
Many fine restaurants continue to use cloth napkins in their table service. Napkins can be folded in many ways. Some of the napkin folds are very elaborate, others quite plain. The type of napkin fold used in the food service establishment where you are now employed is the one you should continue to use there. The illustrations on pp. 323-324 describe how to make some of the various napkin folds.

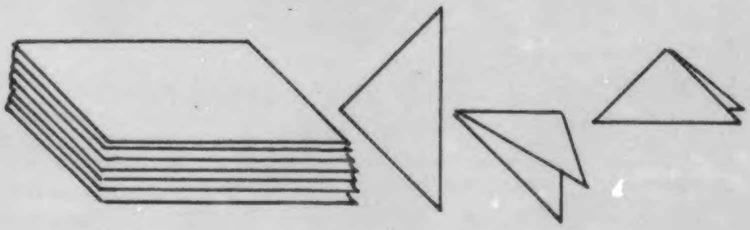
Sometimes a restaurant changes the color of linens and the type of napkin folds used during the day. Be sure that the napkins are always spotlessly clean before using.

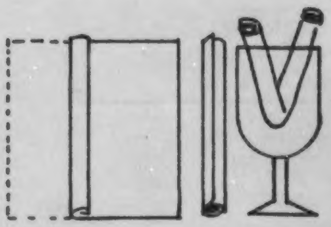
Do not use good table linens to clean spills on any surface except when a customer needs to wipe a spill from clothes or the table. Treat the linens with care. They are expensive.

SIMPLE FOLDS

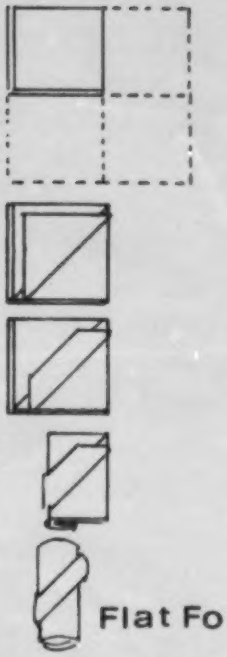




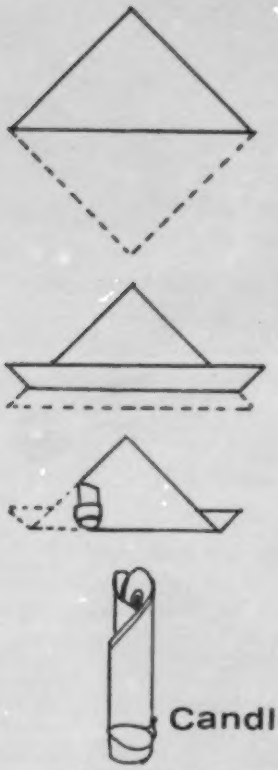




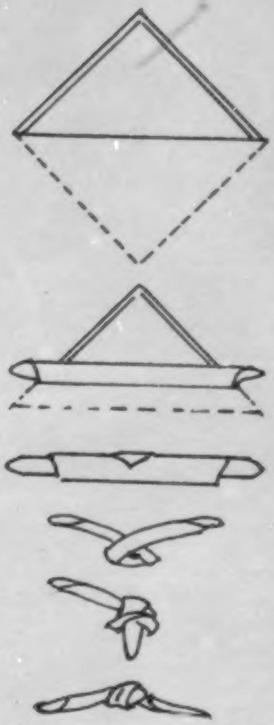
ELABORATE FOLDS



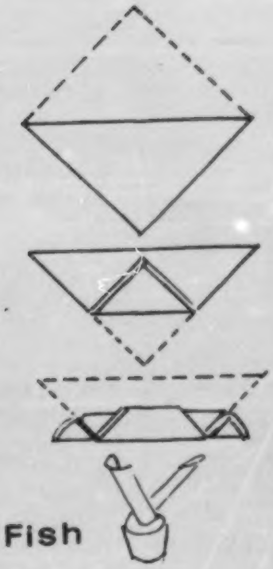
Flat Fold



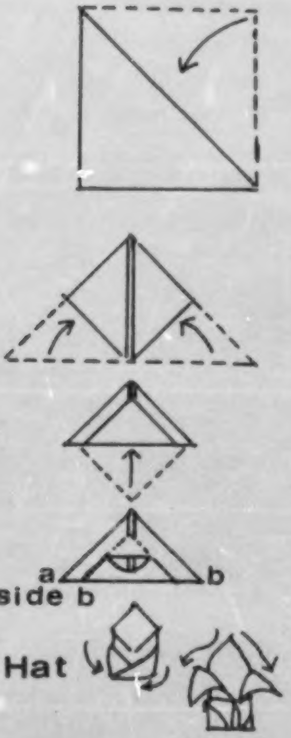
Candle



Diagonal Roll

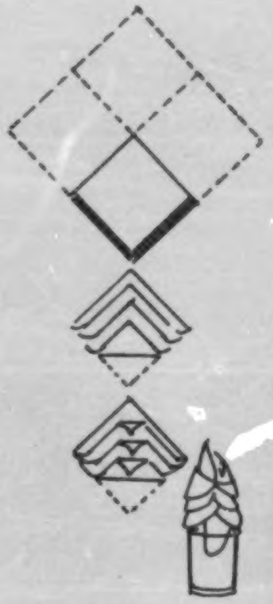


Fish



tuck a inside b

Bishop's Hat



Four Flaps

OPENING AND CLOSING DUTIES

As a food service employee, you may be responsible for opening and closing duties. Opening duties prepare the food service establishment for service to customers. Closing duties refer to the tasks necessary for cleaning up after service to customers. Opening duties are performed usually at the beginning of the day or shift. Closing duties are performed usually at the end of the work day or shift.

Opening duties may include turning on the lights and appliances. Filling condiment containers and checking tables for cleanliness and alignment are also necessary. Other duties may be filling ice bins, placing flowers, checking the cash till, making coffee, bringing out necessary food items, and checking all side stand supplies. If you are working at a cafeteria counter, or setting up a tray line assembly, a buffet table, or a soup and salad bar, additional opening duties may include checking and cleaning glass shelves, counter tops, and other metal surfaces. The steam table or hot counters, and cold tables or cold pans will need to be prepared for service. Place salads, hot foods, breads, desserts, and beverages in the correct locations on the serving counter. Also check the supply of trays, utensils, and other serving tools.

When the opening responsibilities have been completed, food service employees should make a quick check of their personal appearance before customers begin to arrive. The check list on p. 26 will aid you in presenting a well-groomed appearance.

After service to customers, the closing duties include the basic tasks of cleaning and refilling the condiment containers, emptying and replacing ashtrays, and cleaning the coffee urn or pots and other beverage containers. It is important to store all foods correctly. Depending on the size of the food service establishment, you may be expected to clean table tops, counter tops, glass shelves, silver and tray holders, steam tables, cold tables, and trays. Check to see that electrical or gas appliances are turned off or down, depending on whether you are closing for the day or leaving a shift.

BUFFET SERVICE

In *buffet service*, guests serve themselves at least part of the meal from tables in the dining room. A buffet may include only cold foods or both hot and cold foods. A restaurant may serve the entire meal from the buffet. At a banquet, the main course is often served buffet style, with the preceding course or courses and the dessert served by waitresses and waiters. Buffets are also popular for receptions and cocktail parties.

Variations of Buffet Service

A *smorgasbord* is a variation of the buffet. A smorgasbord is a Scandinavian idea adapted by Americans. It is a buffet including an assortment of foods and canapés. The term "smorgasbord" is also used for a buffet from which guests can take as much as they want and return several times.

A popular morning buffet is the *brunch*. Brunch is served throughout the morning, often on Sundays; and usually includes eggs, breakfast meats, breads and sweet rolls, potatoes, fruits, juices, jellies, jams, preserves, coffee, and tea.

A *soup and salad bar* is another popular variation of the buffet. A soup and salad bar usually includes a soup and an assortment of salad ingredients and combination salads. Soup bowls, soups, and accompaniments, such as crackers, croutons, and pepper should be conveniently arranged. Salad plates should be chilled if possible. Salad greens are usually placed first on the salad bar followed by an assortment of prepared fresh and pickled vegetables and fruits, then combined salads. Salad dressings and accompaniments, such as grated cheese, bacon bits, croutons, and pepper are last. Salad ingredients should be fresh and crisp. Items should be attractively arranged, alternating various colors and shapes.

Many restaurants combine two forms of service. There may be a choice of buffet service or ordering from the menu. A restaurant also may feature table service with a salad bar.

Arranging the Buffet Table

The food service employee may be responsible for setting up a buffet table or soup and salad bar. Somone must also be responsible for maintaining the buffet or soup and salad bar during serving hours. In buffet service, service personnel have little contact with customers. Their job is to set up, maintain, and clear food displays.

Careful consideration must be given to the size, shape, and placement of the buffet table. The shape and length of the table set up for a buffet will depend upon the number of people to be served and the amounts of time allowed for serving. Some buffets are scheduled for all guests to eat at one time, while other buffets may have a serving period of several hours. Food on the buffet table should be conveniently and attractively displayed. A tiered buffet can be very appealing to guests. To work well, the table must be low enough for guests to reach items on the top tier without leaning into food on the lower tier. Hot food items should be displayed in chafing dishes or warmers. Hot foods often include roasts, seafood, and combination entrées, as well as vegetables. Low-cost dishes are often displayed near the beginning of the serving line. This encourages guests to fill their plates with these items so they are less likely to want large portions of the more expensive items, such as roast.

Buffet tables should be located as conveniently as possible to the kitchen so replacement of food can be made easily. The buffet table should be arranged so that it is in view of all guests.

When you are assigned to set up a buffet, you will find these suggestions helpful.

1. *Consider the relationship among the various dishes.* Place sauces, dressings, and other accompaniments near the food with which they are served. Place cranberry sauce near the turkey, and mustard near the roast. Place foods which are served together beside each other. Place rice with beef tips, gravy near roast and mashed potatoes.

2. *Consider the order in which foods will be chosen.* A logical arrangement would be plates; cold dishes, including cold foods, appetizers, and salads; hot dishes, including vegetables and entrees; and finally silverware, napkins, and beverages.

3. *Present items as attractively as possible.* Place each item in the correct dish, platter, or holder. Garnish each dish attractively. Arrange items attractively in relation to other foods and to the total display. Alternate shapes, color, and light and dark items. Display each food so guests can serve themselves easily. Place low items in front, high items in back. Replace each item quickly before the container is completely empty.

4. *Add attractive decorations.* Decorations may or may not be something to eat. A melon basket is a centerpiece which can be eaten. Fresh fruit might be used as edible decorations. A decorated ham can be used as a decoration. Cleanliness of the decorations is important. Plastic flowers and greenery are difficult to keep clean and unappetizing when coated with a dusty film. Paper decorations also should be used with care as they may become unsightly before serving hours end. Attractively folded napkins may be used as decorations. Napkins can be folded into many interesting shapes.

5. *Plan an attractive centerpiece.* For a small buffet, a small attractive dish, fruit bowl, or ice carving may be used as a centerpiece. For a large buffet, a larger floral arrangement or ice carving may be used. The centerpiece should be of an appropriate size for the table.

QUESTIONS:

1. The duties a waiter or waitress must perform, other than serving guests, before and during the meals are called ______________________.

2. The area of the dining room to which the waitress or waiter is assigned is called a ______________________.

3. Tasks which prepare a food service establishment for service to customers are called ______________________.

4. Tasks necessary for cleaning up at the end of the day or shift are called ______________________.

5. Things needed for table service are kept in a serving and storage unit called a(n) ______________________.

6. The type of service in which guests serve themselves at least part of the meal from tables in the dining room is called ______________________.

7. The variation of the above service which features an assortment of foods and canapés is called ______________________.

8. Another variation of the type of service described in Item 6 which is served mornings, particularly on Sundays, is called ______________________.

9. In a third variation of the type of service described in Item 6, guests serve only two types of foods themselves and are served the remainder of the meal by a waiter or waitress. This popular variation is called ______________________.

10. What checks should be made of the side stand before meal service begins?

11. Describe the procedure for keeping salt and pepper shakers clean and the contents free-flowing.

12. Describe procedures for cleaning sugar containers.

13. Name four opening duties.
    a.
    b.
    c.
    d.

14. Name four closing duties.
    a.
    b.
    c.
    d.

15. List five things that food service employees should check about their personal appearance before going on duty to serve customers.
    a.
    b.
    c.
    d.
    e.

16. List four things to remember when setting up a buffet.
    a.
    b.
    c.
    d.

ASSIGNMENTS:

I. Practice making some of the various napkin folds.

II. List side work duties you are responsible for in your operation.

GROUP WORK:

I. Demonstrate to other food service employees the napkin folds used at your training station. Compare the folds used at different training stations. Discuss reasons the types of napkin folds vary in different food service operations.

UNIT XII-2

CUSTOMER SERVICE TECHNIQUES

SUBJECT:	Arranging Tables and Decorations
TASK:	27. Help arrange tables and decorations for large groups and special events.
OBJECTIVES:	When you finish this lesson, you should be able to a. list factors which determine room arrangements b. describe possible table arrangements for special events.
REFERENCE:	Weiss, Edith, and Weiss, Hal. *Catering Handbook*. New York, New York: Ahrens Publishing Company, Inc., 1971. pp. 100-106.

As a food service employee, you will need to have an understanding of the procedures used for setting up tables and decorations for large groups and special events. In large establishments, such as a hotel, there may be large numbers of people involved in the planning and preparation of events. This is especially true when several hundred guests are expected. If the affair is to be catered, the host, hostess, or hosting committee will usually know the type of room and table arrangements preferred for their particular groups. The person or persons in charge of the event should furnish you with the following information:

1. Number of guests
2. Seating arrangements
3. Space and amount of flatware needed for each cover
4. Type of linen, flatware, and glassware
5. Decorations: candles, place cards, flowers, etc.
6. Music: live or recorded; space and equipment needed
7. Guest speaker: lectern, dais, or raised platform
8. Microphone and loudspeaker arrangements
9. Menu to be served and special serving equipment needed.

For any function to go smoothly, it is necessary that everyone perform his or her task efficiently and correctly. The failure of one employee to carry out each duty exactly as outlined can spell disaster for the event. If the speaker is prepared to speak and there is no microphone, a lengthy delay may result while one is set up. No doubt, this would be the last time this group would come to the establishment for such a meeting. No establishment can afford the loss of good will with its customers.

ARRANGING TABLES

Most rooms lend themselves best to a limited number of arrangements. As a rule, there are certain ways of setting up tables which have been proven to work best in any room in an establishment. You may be asked to assist in the preparations of tables and the room for large groups or for special events.

For Large Groups

Large groups often want to be seated together at a restaurant. Some restaurants have a few large tables for groups of up to twelve persons. Some restaurants have tables which normally seat four, but which can be expanded to seat up to eight persons. Other restaurants must move two or more tables together to accommodate groups larger than four persons.

Service personnel must learn their employer's guidelines for accommodating large groups. Where should large groups be seated? Should they be seated in a certain area of the main dining room? Should they be seated in a small dining room? Which tables should not be moved? How can tables be grouped to maintain a good traffic flow?

When large groups arrive, they should be assigned to experienced service personnel if possible. Usually at least two persons will be needed to prepare the table. Decide which tables to group together. Try to arrange tables so the flow of traffic will not be interrupted. Work quickly and quietly. Try not to disturb other guests. Be as organized as possible. Do not scatter chairs into passageways between tables. Try to move each chair or table only once. Keep the area neat while you work.

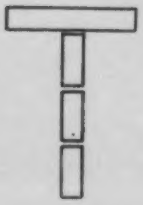
For Special Events

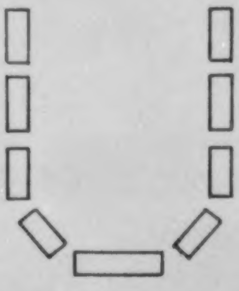
Arranging tables for special events involves consideration of several factors:

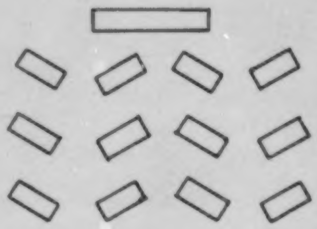
1. The type of function: banquet, dinner dance, buffet, or reception
2. The number of guests
3. The type of service to be used: formal or informal
4. The amount of equipment and number of waitresses and waiters needed (This affects how much space is necessary for service.)
5. The shape of the room and any obstructions in it, such as posts or pillars
6. Whether a head table is to be used and, if so, how many guests are to be seated there.

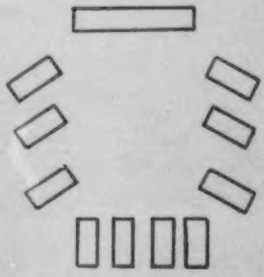
Some points to remember when setting up a room for a special event include the following: the seating arrangement should be well-planned and never overcrowded; the long banquet table should not be used if at all possible (tables for six or eight are easier to serve and are more pleasant for the guests); no guests should be seated with their backs to the head table.

Some possible table arrangements using long tables are T-shapes, U-shapes, herringbone, and hollow squares. These are shown in the following illustrations:

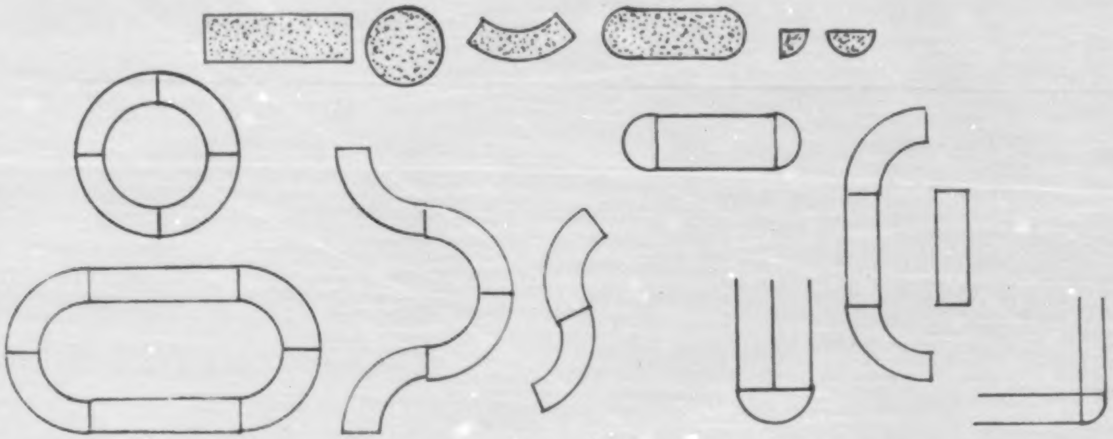








It is often possible to use either folding tables with a variety of different shaped tops, or sectional tables to create such different table shapes as oblong, round, serpentine, oval, quarter-round, and half-round. Round, half-round and quarter-round tables are used to make interesting buffet arrangements.



Certain factors should be taken into consideration when setting up the head table for a function. If possible, the head table should be elevated on either a platform or a dais. Many food service establishments use prefabricated platforms which can be set up to the size needed and which collapse for storage.

TABLE DECORATIONS

Most food service establishments prefer all the tables in a dining area to appear identical. This is accomplished usually through the use of a coordinated color scheme and complementary table accessories.

Table linens, glassware, and flatware today are so colorful that a table is attractively decorated when set. However, a *centerpiece* gives a final touch to a table setting. A centerpiece is an arrangement which serves as the focal point, or center of interest, in a table setting. A well-designed centerpiece can add an individual accent, or express an event or season.

Table decorations for food service dining rooms should be kept simple. If flower arrangements are used, they should be short enough that conversation will not be blocked. Also, the width should be kept to a maximum of eight to ten inches for short tables and twelve inches for long tables. A general rule for table centerpieces is to keep them low enough for seated guests to see over, or thin enough to see through. A bud vase with a single flower often is used on tables in food service dining areas.

Candles can be used also for more formal table decorations. Again, proportion the size and number of candles to the size of table you are decorating.

In addition to candles and flowers, ice carvings, decorated food, and spun sugar designs are often used for buffet table decorations. Edible centerpieces are also very popular for the buffet.

QUESTIONS:

1. List four factors that help to determine the arrangement of tables in a dining room for a special event or a catered function.
   a.
   b.
   c.
   d.

2. Information needed by a caterer from the hostess, host, or hosting committee of a special function includes:
   a.
   b.
   c.
   d.

3. List four things to remember when rearranging tables to accommodate large groups.
   a.
   b.
   c.
   d.

4. Draw and describe two possible arrangements of tables for a special event or a catered function.

5. The ____________________________ serves as the focal point in a table setting.

In Items 6-10, write T if the statement is *true*, and F if the statement is *false*.

______ 6. The cloth covering the head table on a dais should touch the floor.

______ 7. The American flag is often used as a bunting or a decoration.

______ 8. The American flag on its staff should stand behind the speaker or to the speaker's right.

______ 9. When planning table arrangements, allow a certain amount of table space for each guest.

______10. Utility tables are placed around the room for additional guests and convenience.

ASSIGNMENTS:

I. Identify and describe the type of table service used at your training station.

II. List the steps you use to set up tables at your training station. Describe how you could improve the procedures to save time and energy.

III. Make a diagram of one or two possible table arrangements for parties at your training station, taking into consideration the equipment available, shape of the room, and type of service used at your training station.

GROUP WORK:

I. Compare and discuss room arrangements for special parties and catered functions, using the diagrams you made in the individual assignments. Point out the different types of service used, equipment available, and physical properties of the rooms that would determine the arrangements possible at the various food service establishments or catered functions.

II. Make arrangements for a local caterer to come and speak to the class. Be prepared to introduce the speaker, and also have sample questions prepared to ask the caterer concerning room arrangements and different types of table service that are used.

UNIT XII-3

CUSTOMER SERVICE TECHNIQUES

SUBJECT: Preparing the Table

TASKS: 28. Set and maintain tables as instructed.

OBJECTIVES: When you finish this lesson, you should be able to

a. recognize various types of table service
b. illustrate correct table settings for specific types of service.

REFERENCES: Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 237-239; 244-247; 253-256.

Weiss, Edith, and Weiss, Hal. *Catering Handbook.* New York, New York: Ahrens Publishing Company, Inc., 1971. pp. 112-118.

TYPES OF SERVICE

The skill needed by a waiter or waitress is largely dependent upon the type of service used in the food service establishment where they are employed. The major types of service are American, French, Russian, English, and buffet. Any of the styles of service or combination of these may be used by a restaurant to suit its type of operation. The styles of service are discussed in the reading assignment. The waitress or waiter should be able to recognize the appropriate setup, equipment, and serving procedures generally used for each type of service.

SETTING THE TABLE

If one of your responsibilities is to set tables, observe the principles of the establishment where you are employed. Some general rules for setting and serving tables are:

1. Assemble all the equipment needed first.

2. Place a piece of felt, or foam rubber, called a *silence cloth,* on the table if used in the food establishment where you are employed. Many tables have a cushioned top, making silence cloths unnecessary.

3. Cover the table with a clean tablecloth. The cloth should extend at least twelve inches over the edge of the table. Sometimes another tablecloth, called a *top cloth,* is placed over the first tablecloth and is removed each time a meal is served.

4. Place ashtray, sugar bowl, salt and pepper shakers, and other condiments as needed on each table. Additional ashtrays may be needed if the table is occupied by more than two persons.

5. Place *covers* on the table before the customers arrive or immediately after the customers have been seated. A cover is the space set with flatware, dinnerware, glassware, and linens for one person.

Place flatware in the order it is used–from the outside to the inside of the cover. Some clues to remember about placing items on the table are listed below.

1. The folded napkin may be placed in the center of the cover, to the left side of the cover, or in the unfilled water glass.
2. Forks are placed to the left of the cover, except for oyster and cocktail forks. In settings requiring no knife, the fork may be placed to the left of the spoon.
3. The bread and butter plate is placed above the fork.
4. The salad plate is placed to the left of the forks or above the tip of the forks.
5. The knives and teaspoons are placed to the right of the cover leaving enough space from the forks so that a plate can be placed between them.
6. The water glass is placed to the right of the tip of the dinner knife.
7. The coffee cup is placed to the right of the spoons or above the spoons.
8. If a course is served by itself, you may bring the necessary silverware with the course. For example, you might bring an additional spoon with ice cream.
9. Beverages are placed on the right half of the cover, side dishes and bread and butter plates on the left half.
10. Flatware should be placed an even distance from the edge of the table. The distance may vary from 1 inch to 1¼ inches in different establishments. The rim of the dinner plate should be even with the bottom edge of the flatware.
11. The tines (points) of the forks and bowls of the spoons are up, and the blades of the knives face the plate.

Some food service operations follow different rules. Always follow the directions given by your supervisor.

QUESTIONS:

1. The individual setting of linen, flatware, dinnerware, and glassware for one person is called a ____________________.
2. ____________________ is arranged in order of use, working from the outside in.
3. The space allowed for each individual setting is ____________________.
4. Banquets can be served in either the ____________________ or ____________________ style of service.
5. Would these items be placed on the right or left of a cover for a dinner table setting? Write your answer in the blank to the left of each item.

____________________ a. Dinner knife
____________________ b. Salad fork
____________________ c. Teaspoon
____________________ d. Salad plate
____________________ e. Water glass
____________________ f. Soup spoon
____________________ g. Napkin
____________________ h. Coffee cup and saucer

In Items 6-13, match the style of service with its description. Place the letter of the style in the blank to the left of the description. Use each letter only once.

Description

_____ 6. Food is served from a special cart close to the guests' table.

_____ 7. Elaborate variety of dishes offered on a long table.

_____ 8. Food is portioned onto plates in the kitchen, carried on trays to the tray stand, and placed before each guest.

_____ 9. Food is fully prepared, precut, and arranged on silver serving platter in the kitchen.

_____10. Variety of dishes offered on a long table.

_____11. Portions of food are served from service tureens and platters located on a trolley or a table in view of the guests.

_____12. Portions of several styles of service are used to suit a specific type of food service operation.

_____13. Food is brought to the table on large serving platters or bowls, and guests serve themselves.

Style of Service

a. American
b. Buffet
c. Combination
d. English
e. Family
f. French
g. Russian
h. Smorgasbord

ASSIGNMENTS:

I. Identify and describe the type of table service used at your training station.

II. Using a drawing, show a cover set correctly for your particular training station.

GROUP WORK:

I. Compare the type of table service and table setting used at various food service businesses including catering businesses. Use the drawings made in the individual assignments or use equipment in the home economics department or school cafeteria to set a cover like the one used at your training station.

II. Form small groups and demonstrate the various types of table service to other food service employees. Have one person describe to the class special points of each type during the presentation.

UNIT XII-4

CUSTOMER SERVICE TECHNIQUES

SUBJECT:	Meeting the Public
TASK:	29. Welcome customers in an appropriate manner.
OBJECTIVES:	When you finish this lesson, you should be able to a. cite characteristics necessary for success as a service host or hostess b. evaluate personal appearance c. analyze yourself in terms of ability to get along with the public d. use proper procedure for seating guests.
REFERENCE:	Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 58-59; 286.

Front-of-the-house employees are always visible to the customers. They provide the image of the restaurant that the customer remembers most. Customers seldom forget the impression left by an employee's attitude or appearance. Customers usually forgive mistakes made in service if the employee's attitude is good.

CHARACTERISTICS OF SUCCESS

1. *Look sharp.* You must be extremely careful about the appearance of your clothing, face, hair, hands, and posture. When you look good, you feel good. You must feel good yourself in order to help your customers feel that way.

   Females should be careful about using too much makeup or the wrong kind. Light use of makeup is appropriate. Males should shave as often as needed to look clean-shaven. Avoid excessive use of perfume, cologne, or aftershave lotion.

   Short hair styles present a neater appearance and are more sanitary than long ones. Long hair must be put up, covered with a net or cap, or tied out of the way. Hair spray helps keep your hair out of the food as well. No customers want their food garnished with your hair.

   The appearance of an employee's hands is very important. Nails should be well-groomed and extremely clean. Chipped or broken nails are unsightly and look unsanitary. Long fingernails with dark polish or decorations are unattractive in food service. If polish is worn, it should be clear or have a very light tint.

2. *Smell fresh.* Bathing daily and using an effective deodorant or antiperspirant are essential. Some persons perspire heavily. Females can prevent soaking their garments by wearing underarm shields. Males can wear undershirts or T-shirts.

   One of your most important assests is your smile. Your teeth must be clean, bright, and well cared for. Your breath must be fresh. Brush your teeth regularly, and if you smoke or eat strong foods, use a breath freshener to eliminate odor.

3. *Stand straight.* Your posture is as important for your health as it is for your appearance. Successful people usually look successful. Remember how important you are to the management, the customers, and the back-of-the-house persons.

4. *Avoid unnecessary jewelry.* An engagement or wedding ring and a watch are all that is needed. Dangling or noisy jewelry is distracting and may be dangerous. A dangling bracelet or necklace can easily tip over a glass, catch on dishes, or get hung in equipment.

   If you are careless about your grooming or personal cleanliness, guests will wonder how careful you are with their food. Would you want to be served a meal by someone who has an offensive odor, dirty nails, or dirty clothing? Heavy makeup, no matter how freshly applied, appears unclean. That clean, fresh, well-scrubbed look will pay for itself in tips.

Let's take a look now at how you act. You should be:

1. *Friendly, and courteous, but not familiar.* "Yes, Sir" and "Yes, Ma'am" are always acceptable. "Honey," "Sweetheart," and "Sugar" are not.

2. *Helpful, but not overbearing.* A phrase like "Our apple pie is a specialty of the house" is helpful. A phrase like "You can't leave without eating our apple pie" may be overbearing.

3. *Professional in every way.* Control your temper, watch your tongue, and know the policies of the establishment. Learn how to handle unpleasant or embarrassing situations with tact. If these occur often, take a good look in the mirror at your appearance and review your behavior. It could be that you are inviting the wrong kind of attention.

4. *Gracious in your welcome.* Don't leave the impression by your actions or words that you are too busy, too tired, too unhappy, or too lazy to attend to the customer's needs. If you stand erect, smile often, and work efficiently, your tips will show the appreciation of your customers.

5. *Observant.* Do your customers need additional coffee? Have they finished their meal? Do they want dessert? Are they waiting for the check? Pay attention to each customer's needs.

6. *Tolerant of the behavior of others.* Try not to take the behavior of a guest personally. If a guest is rude, demanding, grouchy, or unpleasant in any way, keep cool and calm. Do everything you can to correct the situation. If a guest becomes unruly, report it to the headwaiter, headwaitress, or manager at once. The unruly guest is more likely to take suggestions from someone in authority.

7. *Ready to work when you arrive.* Leave your troubles at home. Don't let personal problems show to customers. This would indicate a lack of emotional maturity. They want to eat surrounded by pleasant people in a pleasant atmosphere. If you are too sick to work, stay at home for the sake of your customers and your own health. Never forget to call the proper person early so that a replacement for you can be found.

8. *Impartial.* Treat all your customers equally. You may feel that you are being friendly by visiting with a customer or group. Others may not see it that way, however. They may feel that their service is being delayed or that they are being neglected, and they may be right. Remember, the customer is the most important person in any food service operation. Lost customers mean lost income for you as well as for your employer.

9. *Self-confident.* You know what you can do and you do it. Laugh at your own mistakes, but not those of others. We all make mistakes, and unless they hurt someone, they are often amusing. You should be able to take criticism. Nobody is perfect, so learn to take corrections from your boss and benefit from them. You can be enthusiastic and energetic. Hop in there and do your work without the need for constant supervision. No one has time to watch you and tell you what needs to be done every minute of the day. You need to be resourceful. Find a way to get the job done even under pressure. Finish what you start.

SEATING GUESTS

You have greeted your customers at the door with a smile. Now where should you seat them? Here are some hints:

1. Every customer in the restaurant has an equal right to dine comfortably. If a group or an individual appears to be the noisy, disruptive type, seat them well away from quiet types.

2. Keep safety in mind. If a family has a small child who requires a highchair, seat the child where the chair does not interfere with safe passage in the aisle or around the table.

3. Take special precautions with the handicapped. If a person is blind, the single best thing to do is ask something like, "Would you like some assistance?"; then follow his or her instructions. The blind person is more used to the situation than you are. Do not move things unless the blind person requests it. Instead, quietly inform the person of unexpected things, such as: "Here is a swinging door." "Your napkin is in your water goblet." A guest in a wheelchair should be placed where the wheelchair will not obstruct traffic.

4. At most restaurants, guests are not seated according to their social position or importance. Keep this in mind.

5. Is there a question in your mind as to whether a guest should be allowed to dine in a restaurant? Leave it up to the manager. A scene with an intoxicated or rude person is highly undesirable.

When you have decided on an appropriate table for a particular group, ask the group to follow you to the table. After they are seated, hand them menus. While serving a couple, present the menu to the woman first. When serving a group, present the menus beginning with the person on the right of the host or hostess, and proceed counterclockwise around the table.

QUESTIONS:

1. List five personal characteristics necessary for success as a service hostess or host.
   a.
   b.
   c.
   d.
   e.

2. Why must persons who prepare and serve food to customers maintain high standards of personal cleanliness?

3. Identify six practices food service personnel should follow to maintain high standards of personal cleanliness.
   a.
   b.
   c.
   d.
   e.
   f.

4. Outline the procedures for seating customers.

5. Describe how to seat a guest who is blind.

ASSIGNMENTS:

I. Describe the procedures used at your training station to seat guests.

II. Using the employee handbook from your training station, make a check list for yourself on personal appearance. If you do not have a handbook, ask your training sponsor to give you guidelines for your personal apperance and hygiene. Use the check list daily; then make a weekly report on how well you are following the guidelines. Turn this report in to your teacher.

GROUP WORK:

I. Make posters to help other students become aware of good grooming requirements for food service workers.

II. Role play situations on "getting along with the public." Show a poor way; then follow with a an improved way to handle each situation. Check the nine guidelines outlined in the unit for role play ideas.

UNIT XII-5

CUSTOMER SERVICE TECHNIQUES

SUBJECT: Writing, Placing, and Picking Up Orders

TASKS:
30. Fill water glasses and distribute menus.
31. Offer suggestions or answer questions about the menu.
32. Write orders following prescribed methods.
33. Place orders in kitchen. .
34. Pick up orders in kitchen.
35. Verify orders by scanning filled plates and trays.

OBJECTIVES: When you finish this lesson, you should be able to
- a. describe procedures for writing orders
- b. describe procedures for picking up and verifying orders
- c. identify items commonly used on menus
- d. demonstrate courteous and efficient use of the telephone.

REFERENCE: Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 160-183; 230-234.

The manner in which you greet customers as you present the menu is your first important contact with them. Welcome the customers with a smile and be courteous, regardless of the customers' attitudes. Place the menus before them and fill their glasses with ice water. Give them ample time to make their selection, answering questions courteously, and making suggestions if asked.

TYPES OF CUSTOMERS

There are any number of types of customers, but the following are typical:

1. *In a Hurry*–If service can be given more quickly in another part of the restaurant (at a counter, for example), ask these customers if they would like to be served there. If not, explain as accurately as you can how long their order will take.

2. *Demanding*–Stay cool and calm. Answer questions with care. Do not agree to give more, better, or faster service to them than to the other guests.

3. *Complainer*–The item the customer came in for is not on the menu. Say, "I'm sorry that you have been disappointed; may I suggest something else?" The soup and coffee are cold, the gelatin and ice cream are melted. Exchange food without a fuss unless you have instructions to do otherwise. Do not appear annoyed, upset, or in a hurry. Listen carefully. Report any complaints you cannot handle to the manager or another designated person.

4. *Uncertain or Shy*–Make suggestions and do not rush them. If the customer takes too much time, excuse yourself and promise to return soon. Do not appear irritated or make the customer feel guilty about delaying you.

5. *Joker or Overfamiliar Guest*—Be courteous, but dignified with this undignified individual. Avoid long conversations and try to be good-natured about "kidding." Avoid going near the table except to provide needed services. If this individual gets "out of line" report it to the manager. Avoid making a scene.

6. *Children in Highchairs*—These may be your most delightful guests or your biggest problems. A few tips on how to prevent an unpleasant situation are:
   a. Do not ask small children what they want to order unless the parents request you to do so.
   b. Move carefully out of reach things a young child might grab; but do not be obvious about it.
   c. Provide young children with small glasses that they can handle. A small plate with crackers on it will keep them happy while their parents order. Do not fill glasses full, and avoid tall serving dishes, such as a sundae dish.
   d. Be friendly, but do not play with or tease them. This can cause them to become too excited to eat.
   e. If possible, place children so they cannot see other guests. This arrangement will help prevent distractions.
   f. Provide extra napkins during the meal and a warm, wet cloth at the end of the meal. Parents greatly appreciate such courtesies.

7. *Blind Customers*—These may or may not need your assistance in ordering. Some legally blind persons can see well enough to read menus with large print. Ask customers if they want a menu. If not, they will probably express some food preferences which can help you make suggestions. Unless they make a comment telling you they don't need or wish to know the price, you should give the price of each item when it is mentioned. For example: "We have a 10 oz. sirloin for $12.95." Blind customers are not usually hard of hearing. Often their hearing is better than average. Keep your voice at a normal, pleasant level.

Your ability to serve each of these customers courteously and effectively will show in your tips. Remember, it's to your advantage to be professional.

TAKING ORDERS

When to Take the Order

When to take a customer's order depends partly upon the time of day and the type of restaurant in which you are working. Breakfast customers are usually in a hurry and want to place orders immediately. Luncheon customers may or may not be in a rush. Those on one-hour lunch breaks are in a hurry. People on shopping or pleasure trips probably are not. Dinner guests are usually ready to relax and take their time. If not, they will probably say so. With experience, you'll discover how long your usual customers want to wait before having their order taken.

When asked to write separate checks for each person in the group, follow the policy of the food service establishment where you are employed. Some restaurants will want one check written for any size group. Other restaurants will allow separate checks for small groups, and some will provide a separate check for each customer. Restaurants using the one-check policy do so because of the amount of time saved over writing individual checks and to make it easy for the kitchen staff to time orders right.

Customers are ready to place their orders when they put the menu down or when they give a signal. Be ready. If there is a host in the party, he may wish to order for his guests, or he may want each guest to order for themselves. If he wants each guest to order for themselves, start with the person to the right of the host. Treat a woman entertaining associates, clients, friends, or family the same as a man.

Smile as you stand on the guest's left side (when possible). Stand erect and at a reasonable distance from the table. Ask if the customers are ready to order. If the customers have decided what they want, they will give you their order. If not, they may wish your assistance. If they give you a complete order (meat, potatoes, vegetable, salad and dressing, beverage, and appetizer) the list is complete. If the appetizer is left out, suggest one. The customer will usually order it.

Read the guest's order back to them after they give each item. For example:

Guest: "I'll have the prime rib."
You: "Prime rib. . .how would you like that done?"
Guest: "Medium rare–and I'll have a baked potato with butter, green beans, tossed salad with Roquefort dressing, and coffee."
You: "Baked potato with butter, green beans, tossed salad, Roquefort dressing, and coffee. Do you want cream with your coffee?"
Guest: "No, thank you."
You: "We have a delicious, fresh 'Gulf Coast Shrimp Cocktail' which is served with our special shrimp sauce. Would you care for one?"
Guest: "Yes, I believe I would."
You: "Would you like your coffee now or with your meal?"
Guest: "Now, please."
You: "Thank you for your order. I'll get your coffee right away."

If a guest does not give you an order or only orders a meat, use the following procedure:

1. Suggest two items in each food category. (This gives an adequate choice that is not confusing.

2. Don't forget to suggest an appetizer. Your tip is based on a percentage of the total check. If you sell a $1.25 shrimp cocktail, the tip could be increased by $.25. Is it worth a quarter to ask a simple question? Multiply that quarter by ten customers and see what your answer is.

3. Look at your customers, smile, and thank them for their order.

To provide the best possible service, be systematic. Mentally number the chairs at a table to correspond with the order. This system enables you to deliver the right order to each customer. It also prevents such questions as "Who has the stuffed tomato?"

List foods in the order that they are to be served. Begin with the appetizers and soups, then list the entrées, and write the desserts and beverages last. Repeat the written order to customers to make sure that it is correct, and to give the customer an opportunity to make changes or additions.

Understanding the Menu–Suggestive Selling

It is important for a waiter or waitress to have a good command of the English language. This does not mean that you try to impress customers with your use of "big" words. It means that you use words properly. Improving your grammar will pay big dividends now and in the future. Saying something like, "It don't make me no difference," will ruin your chances to work in an exclusive restaurant or to move up from your current position. The use of slang words or expressions popular among your friends, or the use of profanity irritates customers and could cost your job. You are often the only image a customer has of the food service establishment, so make your image a good one.

The use of descriptive terms helps increase a customer's appetite, the size of the check, and your tip. Examples of descriptive terms include: "piping hot," "new," "green," "cold," "plump," "fresh," "chilled," "iced," "crisp," "young," and "tender." Think of some other descriptive terms you might use.

Suggestive selling also helps. Suggestive selling means inviting guests to add a food which will increase the dining pleasure of an already satisfactory meal. Suggestive selling might be used like this: "We have a fresh fruit salad of chilled melon balls and plump red strawberries which is served with our special house poppy seed dressing. It would go nicely with your selection of 'Chicken Mornay.' " "We have a special treat for dessert today–a refreshing piece of our delicious lemon pie. Would you care for a serving?"

Some phrases which can be helpful include:

1. "I just served it at another table and it looks delicious."
2. "This has always been one of our most popular dishes."
3. "Lots of people have ordered it and enjoyed it."
4. "Our regular guests order it and say it's one of the best things the chef makes."
5. "I had this for lunch and thought it was delicious."

Above all, be honest and sincere. If you are not, it shows. The old adage "If you can't say something nice, don't say anything at all" certainly applies here. Find a dish you can say something nice about, and recommend it.

To be able to make menu suggestions to customers, you must understand the terms on a menu. Take time to become familiar with menu arrangements and the meaning of terms used on menus.

The waitress or waiter is responsible for the timing of the meal. After taking the guest's order, the waiter or waitress must decide whether to place the order in the kitchen immediately or to hold it for a short time. If the guests are having cocktails and hors d'oeuvres before dinner, the order should be held for a short time. Be careful that you do not forget to turn the order in to the kitchen.

Placing Orders in the Kitchen

In a single-unit kitchen, the chef is responsible for having the entire order ready at the same time. In a multi-unit kitchen, the waiter or waitress coordinates the meal. The order may have some entrées that take longer to prepare than others. You must submit these orders in separate stages so that they are all ready at the same time. For instance, a broiled meat takes longer to prepare than a stew, which is probably ready immediately.

In many food service businesses, the order is written on a guest check which is attached to a rotating wheel or spindle in the kitchen. In large kitchens, parts of the order must be rewritten on separate sheets and submitted to various food preparation units of the kitchen.

Picking up Orders

When the order is ready, the cook puts the check with the order. Buzzers, small light signals, or other methods may notify you that your order is ready. Some establishments have no such system. It is your responsibility to check on the order.

To ensure that guests are served food that is the correct temperature, be sure that you pick up the orders as soon as they are ready. No one enjoys eating a cold steak or a lukewarm salad.

Verifying Orders

As you pick up the order, scan the plates and trays to make sure the order is complete. Compare the items in the order with the items listed on the check. Note if any changes have been made in the items ordered. Quickly check the order for eye appeal. Ask the cook to improve the appearance of any food that is not appealing.

TAKING TELEPHONE ORDERS

Many restaurants, especially those which offer fast-food service, do much of their business by telephone. Other restaurants may not do telephone business or may take reservations only.

Whenever the phone rings and you pick it up, you have a potential customer on the line. Your telephone manners help to determine whether this person decides to become a customer.

These hints may aid you in winning and keeping that caller for a customer.

1. Answer promptly with a pleasant tone of voice.
2. Identify yourself. For example: "Good afternoon, McGorne's Restaurant, Sandy speaking. May I help you?" Another phrase that is often used is "Thank you for calling McGorne's Restaurant. This is Sandy. May I help you?"
3. Keep a pad and pencil handy.
4. Place the receiver carefully on a padded surface if you must leave the phone.
5. Ask, "May I say who's calling, please?" Do not say, "Who's calling?" or "Who is this?"
6. If you must leave the line, explain why. If the delay will be over one minute, offer the option of "holding" or having the call returned.
7. Repeat the information received back to the caller. Be sure you have names spelled correctly. This gives the caller an opportunity to correct any errors or misunderstandings.
8. Do not hold your hand over the receiver thinking that you will not be heard. Both ends of the receiver pick up sound.
9. Do not yell across a room to say someone has a call. Say, "Just a moment, please. I'll get them for you." Then walk to the person and tell the person in a quiet voice that he or she is wanted on the phone.

10. If the person being called is not in or is unavailable, offer to take a message or have the call returned.
11. Avoid making or receiving personal phone calls. The telephone is for business purposes and should be reserved for those calls only.
12. End each call courteously with "Good-bye. Thank you for calling McGorne's Restaurant," or some other appropriate statement.

Businesses are all aware of the importance of their telephone impressions. Many of them have standard forms of greetings and closing statements for their employees to use. Keep in mind that this caller might be your employer or one of their best friends. Answer every call as if it were one of these persons.

PREPARING MENU FOLDERS

If you work in a small restaurant, your duties may include typing the daily menu. The daily menu specials are often on a mimeographed sheet which is attached to the regular menu.

When typing the menu, be sure it is centered on the page. The headings should be clear and include an accurate description of the menu items. It is especially important that there are no typographical errors. The wrong price typed on the menu can cause the business to lose money, or can create a poor impression with the customers.

QUESTIONS:

1. An indication that a guest is ready to order is when ______________________________
____
2. When taking an order, the waiter or waitress should stand ______________________________
____
3. Foods and prices for a food service establishment are listed in a ____________________
4. When food items are priced separately and seldom changed it is called the ______________ menu.
5. When complete meal combinations at set prices are listed with the entrées, it is called the ______________________ menu.
6. Juice, rolls, and coffee make up a ______________________ breakfast.
7. Jim has trouble remembering which foods each customer has ordered. What suggestions could you give him?

8. The customer ordered a steak dinner which included a choice of baked, French-fried, or mashed potatoes; a green salad; and a choice of beverage. What questions would Mary ask as she took the order?
   a.

   b.

   c.

   d.

   e.

9. Give the order in which food items are generally listed on a menu.

10. Why is it important to answer the telephone at a business in a courteous, businesslike way?

11. How should you handle a business phone call when the person phoned is not in or is unavailable?

12. Give two examples which can be used to identify yourself when answering the phone at a food service establishment.
    a.

    b.

13. Suppose the menu in the food service establishment where you are employed contained the following foods. How would you describe them to customers?
    a. Julienne of Turkey

    b. Lobster à la Newburg

    c. Charlotte Russe

    d. Chicken Fricassee

    e. Au Gratin Potatoes

    f. Hollandaise Sauce

    g. Peach Melba

    h. Sautéed Mushroom Caps

In Items 14-21, write the abbreviation used for the menu items when writing orders. Place your answer in the blanks provided.

____________________14. Bacon, lettuce, tomato sandwich

____________________15. Apple pie à la mode, vanilla ice cream

____________________16. French-fried potatoes

____________________17. Orange juice

____________________18. Coffee

____________________19. Grilled hamburger

____________________20. Grilled hot dog

____________________21. Chef's salad

In Items 22-33, match each menu term with its definition. Place the letter of the term in the blank to the left of its definition. Use each letter only once.

Definition

______22. Cold cream of potato soup

______23. Clear meat stock

______24. Boneless cut of beef, veal, pork, or fish

______25. Specialty of the house

______26. Cooked in butter

______27. Thick cream soup

______28. Ice cream served on pie

______29. Main dish, such as meat or fish

______30. Cream sauce flavored with sherry

______31. Stewed meat or chicken with white sauce

______32. Stew of highly seasoned meat and gravy

______33. Sauce of egg yolks, butter, lemon juice, and seasonings

Menu Term

a. À la mode
b. Au beurre
c. Bisque
d. Consommé
e. Entrée
f. Fillet
g. Fricassee
h. Hollandaise
i. Maison
j. Newburg
k. Ragout
l. Vichyssoise

In Items 34-40, write T if the statement is *true*, and F if the statement is *false*.

______34. When a customer is demanding, promise to give them better and faster service than the less demanding customer.

______35. Handle all complaints as best you can to avoid bothering the manager or supervisor.

______36. If a customer is in a hurry, explain as accurately as you can how long their order will take.

______37. During peak serving hours, try to hurry up the guest who is uncertain or shy about ordering.

______38. Treat young children as adults and ask them for their order.

______39. Keep your voice at a normal, pleasant level when talking to a blind customer.

______40. Repeat the written order to customers to give them an opportunity to make changes.

ASSIGNMENTS:

I. Examine the menu in the establishment where you work. Are there any foods you would have trouble explaining to a customer? Write out the definitions of these foods.

II. Obtain a sample of the form used in your training station to take orders. Practice completing the form correctly.

GROUP WORK:

I. Role play some of the following situations: suggestive selling, the correct procedure for taking orders from customers with children and from blind customers, dealing with customers on the telephone, and other situations from your training station that require special techniques.

II. Depending on the telephone company in your location, tele-trainers may be available at no charge. Ask your teacher to obtain one for your use. Work in pairs to practice the correct procedure of taking orders over the telephone. Let other food service employees evaluate your performance and make suggestions for improvement.

UNIT XII-6

CUSTOMER SERVICE TECHNIQUES

SUBJECT:	Serving Customers
TASKS:	36. Serve food and beverages in prescribed manner. 37. Check the needs of the customers periodically and supply them with needed items. 38. Clear items from tables as the customer is finished with them.
OBJECTIVES:	When you finish this lesson, you should be able to a. summarize general procedures for serving food to customers b. describe typical serving procedures in different types of food service.
REFERENCE:	Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A Bennett Co., Inc., 1979. pp. 239-243; 247-253.

Knowing the correct serving techniques for various types of food service is the first step in developing skill as a waiter, waitress, or counter worker. Study the techniques described in this lesson and compare them to those used at your place of employment. Constantly looking for ways to improve service to customers is a mark of professionalism. Food service skills can lead to higher tips and a raise in pay.

GENERAL SERVING TECHNIQUES

Several different styles of food service are used in restaurants today. These styles originated in the private homes of European nobility. Over the years they have been modified for restaurant use. The major styles are American, French, Russian, English, and buffet. Some restaurants have combined the features of two or more styles of service to fit their operations. Study the general rules listed below, but also become acquainted with the style of service used in the establishment where you are employed.

1. When serving, start with the person at the right of the host and continue counterclockwise around the table.

2. Serve food from the guest's left with the left hand. Remove dishes from the right with the right hand. Do not stack dishes in front of guests.

3. Hold the plate with your fingers under the plate and your thumb on the edge of the rim of the plate.

4. Always place appetizers, and cereal and soup bowls on plates called "underlinings," and set them in the center of the cover in front of the guest. Place cocktail forks and soup spoons on the right side of the underliner, or set the soup spoon and cocktail fork to the right of the cover.

5. When the salad is served with the main course, place the salad plate to the left of the forks. When the salad is a separate course, place it in the center of the cover.

6. Place the cup and saucer to the right of the spoons with the cup handle to the right. Place water glasses above the point of the knife. Set additional glasses slightly lower and to the right of the water glass.

7. When refilling glasses or cups, do not pick them up from the table. In booth service, this may be awkward, or might result in spilling the beverage on the customer. If this is the case, the glass, or cup and saucer, is removed from the table to be refilled.

8. Handle glasses by the stems or near the base. Pick up cups by the handle.

9. If the guests serve themselves, present the platter to them on the left side with serving utensils on the right side of the platter and the handles toward the guest.

10. Never use soiled, chipped, or cracked dinnerware or glassware.

11. Serve food at the appropriate temperature. Do not let hot foods sit and become cold nor cold foods reach room temperature.

12. Place the plate of food in the center of the cover with the entrée closest to the guest.

13. Serve only food that is appetizing and attractively garnished. If you think it "looks good enough to eat," your customer probably feels the same.

BOOTH SERVICE

It is impossible to serve guests seated in booths in the same manner as those seated at tables. A waiter or waitress must stand at the end of the booth rather than move around the table to each guest. Turn toward the guests on your right and serve them with your left hand. Serve guests next to the wall first and the guests sitting at the outside end of the booth last. This pattern eliminates the possibility of upsetting cups, glasses, or plates that have already been placed in front of the guest on the outside. Then turn toward the guests seated on your left and serve their food with your right hand. You also may have to pick up beverage glasses or cups from the table to refill them if it is hard to reach them from the end of the booth.

You always must be observant of the customers regardless of where they are seated. But when serving a booth, take extra precautions.

1. Make guests aware that you are about to reach across the table. Say, "Here is your coffee, sir;" "This plate is hot;" or "Excuse me, ma'am;" before reaching across the table. Letting customers know what you are doing can help prevent sudden, unexpected movements which can lead to unfortunate and dangerous spills.

2. If a customer attempts to be helpful by reaching for the food you are serving, stop, and allow the customer to take it from you. If the plate is too hot, tell the customer so and set it down yourself. If you continue toward the customer, an accident may result.

COUNTER SERVICE, CARRY-OUT SERVICE, AND FOUNTAIN SERVICE

REFERENCE: Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 217-220; 223-226.

The job of food server in these three types of service requires not only the serving of food but often the preparation of some foods. It requires the ability to compute sales and make change quickly and accurately. It is also important to be able to work quickly and efficiently so that a large number of customers can be served.

Customers are often in a hurry and want to be served quickly, but not in a haphazard way. The customer should receive the same courteous, good service whether sitting at a table in a fine restaurant, sitting at a counter, or standing at a carry-out counter.

CAFETERIA SERVICE

REFERENCE: Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 220-223.

In cafeteria service your concerns are somewhat different. All food items are ready to serve when the customer arrives. The serving equipment is in place and ample supplies of food are in the serving containers. Your responsibilities include keeping containers and items filled, keeping the area clean, being friendly with customers, knowledgeable about the food, and carefully controlling portions.

Each person who works on the cafeteria line has a responsibility for performing the tasks accurately and efficiently. When one person fails to carry out the tasks assigned, service all along the line is delayed, and dissatisfied customers result.

Steam Table

One of the major work areas on the serving line is the steam table. If you are assigned to this area, be sure everything is ready before serving begins. Check for an orderly and attractive arrangement of food in the containers. Overlap slices of meat, place meatballs in straight rows, and place meat loaves in the center of the pan. Arrange garnishes attractively among the food. Arrangements of this kind make the food more appetizing than if it is just dumped into the container. Be sure appropriate serving equipment and plates or serving dishes are placed in a convenient location.

During service, wipe the rims of the containers brought from the kitchen before putting them into the steam table. Keep pans filled. Customers hesitate to take the last portion. Keep them clean while serving. Wipe up spilled foods immediately with a clean cloth because baked-on particles are difficult to remove.

Salad Counter

Another area of the serving line to which the worker may be assigned is the salad counter. As a salad counter worker, you clean counter tops and shelves and arange salads attractively before the serving period begins. Group salads of a similar kind together. Grouping helps the customer to make a selection. Arrange salads so there is contrast in color. Putting coleslaw next to potato salad and cucumber salad results in an arrangement of several light or white foods. To make a more attractive arrangement, place slices of tomatoes or other colorful foods with white or light-colored foods. On the other hand, a beet salad next to tomato slices does not appear very pleasing. Separate colors that do not go together with colors that harmonize well.

Arrange items in the salad counter in an orderly manner. Put plates of the same size in a row. Place bowls together and use them to separate rows of plates. Arrange salads so the highest part of the lettuce leaf is at the back of the plate so the customer can see the salad. Alternate rows of gelatin salads with rows of sliced fruits or vegetables to provide variety in height and type of arrangement.

Dessert Counter

The appearance of the dessert counter is as important as the rest of the serving line. Keep it clean and arrange items in an orderly and attractive manner. Group desserts according to type to aid the customer in making a selection. The same suggestions given for salads apply also here, *i.e.*, keep containers of the same size and same foods together, and keep rows straight and even.

Place pieces of cake so that both the cake and the icing can be seen. Place pieces of pie so that the point is toward the customer. Center both cake and pie on the plate.

Portioning and Plating Food

One of the most important factors in serving the food to the customer is knowing the size of the portion planned by the cafeteria manager. Portion sizes may be expressed by weight, number, measure, size of scoop or ladle, or a combination of these, such as "two No. 20 scoops." Too large a serving spoon puts the business "in the red," and too small a serving disappoints the customer. Unless directed otherwise, fill the portion server *level,* not rounded. Another decision to make about serving is what type of container is best. Should the food be served on the plate or in a separate dish? Should the gravy be put over the meat or at the side of the meat? All of these questions should be answered before the customers start arriving because there is not time to find out once serving begins.

When serving the food, place it within the rim of the plate, not extending over the edge. Place relishes accompanying the meat next to the meat and on the opposite side of the plate from the potatoes. This arrangement prevents the relish and gravy from mixing. Wipe food particles with a clean cloth from the rim of the plate before handing it to the customer.

Ask the customer for all the information necessary for serving the food. Some of the types of questions that may need to be asked are: "Do you care for gravy with your meat?" "Do you want rare, medium, or well-done meat?" "Do you want toast with the creamed tuna?" "What dressing do you want on your salad?"

Replenishing the Counters

Exchange full pans for empty ones instead of putting fresh food into the used containers. Scrape food off the sides of the containers to prevent food from drying out and appearing unappetizing. Dish the food from the back of the pan toward the front and in an orderly system across the pan. Continually move salads and desserts forward from the back and place fresh items behind.

Regardless of the area where one works, cafeteria servers should be familiar with the food items offered on the day's menu, and should have some knowledge of the ingredients used in the dishes being served. When a customer is having difficulty in making a choice, workers should be able to make a suggestion. For example, "The sautéed mushrooms are especially good today." Ability to meet customers' requests in the serving line is aided by developing speed in serving food and maintaining a polite and tactful serving manner.

*School Lunchroom/Cafeteria**

The major goal of school lunch programs is to serve nutritious and appealing meals. The foods that are served are the result of menus based on the U.S.D.A. Type A School Lunch requirement. The meals must contain a minimum of nutritious foods in specified amounts. Government commodities are a major source of the food supply used in the Type A School Lunch program.

The procedures for serving the food are like those used in commercial cafeterias. However, some procedures may differ. For example, students participating in a school lunch program may be required to receive certain foods in specified amounts. In commercial cafeterias, the customers may make their own menu selections.

Another difference in service is that food service workers in the school program are responsible for helping students develop a better understanding of good nutrition by teaching basic nutrition. Better eating habits can be promoted through the general attitude toward the food by the food service worker.

In addition, the manner in which the food is served will affect whether or not it is eaten. This is especially important in the school lunch program because food waste must be kept to a minimum to cut costs and to ensure that students are actually consuming a nutritious meal. Therefore, it is especially important for the server in a school lunch program to have a positive attitude toward the food being served.

CATERING SERVICE

REFERENCE: Weiss, Edith, and Weiss, Hal. *Catering Handbook.* New York, New York: Ahrens Publishing Co., Inc., 1971. pp. 2-6.

Catering is an adaptable form of food service. The basic purpose of a catering operation is to carry out the requests of the client. A catering operation responds to a market need. A catered function might be a child's birthday party with a simple menu that serves ten, a formal banquet that serves several thousand people, or anything in between according to the client's desires and needs.

Catering operations range from complete catering with banquet rooms, equipment, and staffs to individuals who prepare and cater from their own kitchens and deliver to the location of the client's request. Each catering operation will vary greatly because of geographical location, equipment available, client requests, and the skills of the individual caterer.

Several different styles of food service have already been discussed earlier in this lesson. Study the general rules listed on pp. 350-351. These rules will help you become familiar with proper etiquette and sanitary methods that are practiced in most food service operations and catering establishments.

It is very important to check with the caterer to become acquainted with the particular style of service requested by the client for the catered function. A caterer may specialize in any of several types of food service, such as catered banquet hall, off-premise catering, or mobile unit catering. The food service style for the different types of catering will depend on client request. Always check with the caterer for the particular style of food service requested by the client for the catered function.

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*The information given under School Lunchroom/Cafeteria follows the guidelines set for Type A Lunch programs for 1979-80. These guidelines will change periodically. For up-to-date information consult with your local school cafeteria managers.

QUESTIONS:

1. Customers are generally served foods from the ______________________ side.
2. When the guests are serving themselves, the waiter or waitress should ______________________
____
3. When the salad plate accompanies the main course, it should be placed ______________________
____
4. When the salad plate is served as a separate course, it should be placed ______________________
____
5. The cup and saucer should be placed ______________________
____
6. To ensure that the customer is served food that is the correct temperature, serve foods ________
____
7. The host at a table of guests should be served ______________________
8. Some hints for loading trays are:
   a. Place the heavier items in the ______________________
   b. Place glasses, silver, and cups ______________________
   c. Place coffee pots or pitchers ______________________
   d. Load the tray so that it is ______________________
9. List four ways to avoid accidents when serving customers seated in a booth.
   a.
   b.
   c.
   d.
10. How does counter service differ from table service?
11. Why is it important for cafeteria counter workers to serve portions the size the cafeteria manager desires?

12. As Sally arranged the salads at the salad counter, she put them in the following order: a row of tossed cabbage, a row of beet slices, a row of tomato slices, a row of coleslaw, a row of cucumber slices, and a row of shrimp salads. They were placed in neat, orderly rows, but the manager made one suggestion. What do you suppose it was?

13. Why do serving personnel need to be familiar with the foods they are serving?

14. How does the cafeteria service in a school lunch facility differ from the cafeteria service in a commercial cafeteria?

15. What general rule should be followed by an employee of a catering establishment concerning serving techniques to be used for a catered function?

ASSIGNMENTS:

I. Observe counter workers in a food service business and in your school cafeteria. Keep a list of work methods and skills that make the counter worker efficient. Share and discuss your list with others in the class.

II. Note good and poor procedures you have observed waiters and waitresses using when serving customers. Which of these practices do you follow in your work? Make a plan for correcting the poor procedures you follow now.

III. Interview a cafeteria worker employed in the school lunch program at your school. Gather information relating to nutrition, how food is served, and regulations that must be followed. Give a summary of your interview to the class.

GROUP WORK:

I. Form groups to role play the correct service of food in table service, booth service, counter service, carry-out service, cafeteria service, and catering service.

UNIT XII-7

CUSTOMER SERVICE TECHNIQUES

SUBJECT: Serving Special Foods

TASK: 39. Serve special occasion foods.

OBJECTIVES: When you finish this lesson, you should be able to
a. summarize general procedures for serving special foods.

REFERENCE: Weiss, Edith, and Weiss, Hal. *Catering Handbook*. New York, New York: Ahrens Publishing Co., Inc., 1971. pp. 140-145.

Among the special occasion foods which you may be asked to serve are tea and coffee, punch, cake, hors d'oeuvres, and canapés.

COFFEE AND TEA

As a food service employee, you may be asked to serve tea or coffee during a special occasion. Several types of service are used for these beverages. In restaurants, tea and coffee may be available at side stand units which allow individuals to serve themselves. A waiter or waitress may serve the customers from a pitcher or coffeepot. In more formal settings, a silver coffee or tea service may be used.

Whether the setting is a restaurant, a cafeteria, or a catered affair in a meeting room or club, be aware of the needs of your customers. Ask guests if they would like a refill of the beverage.

Remember that unlike other foods, beverages are served from the customer's right. Fill the cups to one-half inch from the top. When refilling cups, do not remove them from the table. However, if space is limited and it would be possible to spill the beverages on the customer, it is best to remove cup and saucer from the table to refill the cup. When returning the cup and saucer to the table, remember that the cup handle should be in the four o'clock position, which would be slightly angled to the right of the flatware. Fill the cups three-fourths full to prevent spilling.

When tea is served by the pot, place tea bags beside or in the pot filled with boiling water. The pot and tea is then served to the customer. Customers serve themselves from the teapot. Decaffeinated coffee is served like tea. Some food service establishments will want to serve a second pot of boiling water to the customers. When carrying a tray containing filled teapots, check that the spouts of the teapots are turned toward the center of the tray. This will keep the tea from splashing on guests or on the floor.

A separate table is often set up for hot tea and coffee service for a reception. The guests may serve themselves, or an individual may pour the beverage for the guests.

PUNCH

Punch is a popular beverage choice for receptions and parties. Punch is served from punch bowls, which may be made of glass, silver, or plastic. The punch bowls often have a matching ladle. The punch bowl may be set on a matching tray, or in a ring of greenery, fruit, or flowers, depending on the occasion. A decorative ice ring is sometimes floated in the punch bowl. Fruit or flowers added to the ice ring will add a festive note.

The punch is poured with a punch ladle. The ladle is usually slightly curved and long enough to extend over the edge of the punch bowl so you will not have to worry about the ladle's slipping into the punch. The pouring lips of the punch ladle are located on the side of the ladle, which makes it easier to pour the punch without drips or spills. The arrangement of the punch cups will depend on the space on the table. Usually the punch cups are arranged around the punch bowl, to one side, or on a tray to one side of the punch bowl.

To serve the punch if you are right-handed, pick up a cup by the handle with the left hand. With the right hand, pick up the ladle, fill with punch, and pour the punch into the cup. If you are left-handed, pick up the cup with the right hand and the ladle with the left hand. Pour the punch slowly to avoid splashing and spilling. Avoid filling punch cups so full that it will be difficult for guests to handle them without spilling. Return the ladle to the punch bowl, switch the cup to the other hand, and serve the punch to the guest. Be sure the handle of the cup is turned toward the guest so it will be easier for the guest to receive it. Never fill punch cups far ahead of time. Fill a few punch cups at a time.

Do not remove the punch bowl from the table to refill it. Refill the punch bowl from pitchers of punch brought from the preparation area. The pitchers should be as attractive as the other table appointments. Avoid splashing the punch when pouring it from the pitcher into the punch bowl.

CAKES

Cakes add a festive note to special occasions and are a popular dessert. As a food service employee you may be asked to serve the cake for a catered affair, a private party, or for customers' or patients' birthday and anniversary celebrations. The number served may range from two to hundreds.

Many restaurants have a policy of serving small individual cakes to customers celebrating birthdays and anniversaries. The customers enjoy the special attention and it promotes good will for the food service establishment.

When placing their orders, most customers will tell the waitress or waiter if someone in the group is celebrating a birthday or anniversary. Other customers may want to surprise their guest(s) of honor and will tell the host or hostess, or a food service employee away from their specific table. Once the message is relayed to the kitchen, you will be in charge of serving the cake, which should be timed with the conclusion of the meal.

The individual cakes are baked and iced ahead of time in anticipation of the coming celebrations. Policies of food service establishments vary in how they personalize the special cakes. Some have the custom of adding a candle or candles to the cake and others will add a "sparkler" firework. Either are usually lighted before they are carried to the customer's table.

Some food service establishments like to pipe the name of the person celebrating a birthday, or the number of years of an anniversary, on the cake. Other establishments use both candle or sparklers and the piped name or letters. If you are employed where the name and years are piped on the cake, be sure of the correct spelling and number of years. If the information was not turned in when the celebration was first mentioned, discreetly ask a member of the group for the correct spelling of a name or number of years. Even when you think you know the correct spelling of a name, it is best to check. For example notice the different spellings of these names: Betty or Bettie; Johnny or Johnnie; Janice or Janis. Nothing will dampen the happy spirits of people celebrating more than a mistake in the message on the cake.

Depending on the food service establishment where you are employed, the custom may be to sing "Happy Birthday" as the cake with the lighted candle or sparkler is carried to the table. Don't despair at the thought of singing. Other employees can be alerted to join in with you, and almost immediately the group at the celebration table, as well as other customers, will join in. Set the cake on the table in front of the person being honored. Take a step or two away from the table, stand and sing with the group until the song is completed. The honored guest may wish to cut the cake, or you may be asked to cut and serve it. Remember, it is a happy occasion, and your cheerfulness will add to the pleasure of the customers.

You may be asked to cut and serve cake for a catered reception or a party honoring a particular person. At most catered parties the honored guest will blow out the candles and make the first cut into the cake, and then the caterer's staff will take over the cutting and serving of the cake. At catered wedding receptions the bride and groom, holding the knife together, make the first cut into the cake. After photographs are made, the caterer's staff will cut and serve the cake. Techniques for cutting and serving the different types of cakes are discussed in the reading assignment.

HORS D'OEUVRES AND CANAPÉS

Hors d'oeuvres and canapés are served as appetizers at the beginning of a meal to stimulate appetites. They are also served as the main food item at special parties and receptions. Hors d'oeuvres and canapés may be served either hot or cold.

Hors d'oeuvres are usually food items such as stuffed celery, pickles, radishes, deviled eggs, cheese, and sausages. Hors d'oeuvres, usually considered finger food, should be eaten with a fork if they are made with a sauce or have a tendency to drip.

Canapés are appetizers which are open-faced with a mixture of eggs, meat, cheese, or fish spread on a base of bread, toast or crackers. A dip served in a bowl accompanied with crackers or chips is considered a canapé guests can make themselves.

The appetizers are prepared and arranged on trays, plates, and other serving dishes in the kitchen. The appetizers should be prepared on duplicate serving pieces so when one is removed from the buffet table, it can be replaced with another just like it. The use of duplicate serving pieces also helps to keep the table uniform and appealing throughout the function. The number of trays and serving pieces to be arranged on the table should be compatible with the size of the table, since an overcrowded table is not appealing to the eye. To limit the number of serving pieces needed on the table, several different items can be arranged on each tray or plate. The appearance of the table is improved when the serving pieces used are different sizes and shapes.

When appetizers are served on a buffet table, it is important to replenish the food items. Do not let the food dwindle to one or two appetizers on a tray, but always keep a generous assortment of food available for the guests. Do not refill the serving piece at the table. Remove the tray or plate from the table and replace it with the duplicate tray prepared in the kitchen. Return the empty or nearly empty serving piece to the kitchen. The kitchen staff will refill a clean tray or plate and it will be ready when you need to replace the serving piece on the table. The buffet table always should present a pleasing picture to the guests.

At some functions you will be asked to serve the appetizers directly from the preparation area. Pick up the tray, carry it among the guests, and offer individuals the assorted appetizers. Control the amount of movement you make among the guests because you can become a nuisance if the guests are constantly interrupted with offers of appetizers. It is also important that no guests be neglected when you are serving appetizers.

Always check the trays of appetizers when you pick them up from the preparation area. The food should be attractively arranged and the garnish always should look fresh, never wilted. The appetizers should not be crowded on the tray. Remember, the guest should be able to remove the appetizer from the tray without touching another appetizer.

When serving appetizers for specific functions, it is important that all employees understand their assignments and their specific duties. At small functions your responsibilities may include removing empty or nearly empty serving pieces from the buffet table, returning them to the kitchen, and replenishing the buffet table with the duplicate prepared trays. You also may be expected to arrange appetizers on the trays and to add garnish. At a large function the same responsibilities are usually divided among several employees. Regardless of the size of the function, efficient and pleasant service is important to the success of the affair.

QUESTIONS:

1. Beverages are served from the ______________________________ (direction) of the customers.
2. Punch is poured with a ______________________________
3. How full should beverage cups be filled?
4. Explain how to serve punch to a guest.

In Items 5-9, write T if the statement is *true*, and F if the statement is *false*.

_____ 5. Leave the coffee cup on the table, except when space is limited, to refill it.

_____ 6. Remove the punch bowl from the table to refill it.

_____ 7. The top tier of a wedding cake is cut after the ornament is removed and placed on a tray.

_____ 8. Individual tiers of the cake may be cut in different ways.

_____ 9. Hors d'oeuvres and canapés are served as appetizers at the beginning of a meal.

ASSIGNMENTS:

I. List the steps you should follow when serving a guest a cup of punch.

II. Describe in detail the steps you would follow when cutting and serving the tiers of a cake.

GROUP WORK:

I. Prepare posters illustrating the accepted standards for cutting cakes. Display the posters on a bulletin board

II. Form small groups and demonstrate how to serve punch, coffee, and tea in a reception line.

UNIT XII-8

CUSTOMER SERVICE TECHNIQUES

SUBJECT: Fundamentals of Bus Service

TASKS:
40. Replenish serving station during serving hours.
41. Fill condiment containers, arrange dishes and flatware in appropriate places.
42. Remove soiled items from tables and stations.
43. Carry loaded trays between kitchen and serving areas.
44. Sort, count, and store utensils at designated places.

OBJECTIVES: When you finish this lesson, you should be able to
a. describe the tasks involved in bus service
b. relate the importance of bus service to the efficient operation of the food service business.

REFERENCE: Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 216; 254-256.

The duties of a dining room attendant either may be assigned to someone hired especially for that position or divided among other employees. Regardless of who does these tasks, it is important for the smooth operation of the food service business.

PERSONAL CHARACTERISTICS

The job of dining room attendant (busboy or busgirl) does not usually require previous experience. This is a valuable way to learn the food service business. Alert, competent young men and women can advance readily to better-paying jobs from the position of dining room attendant.

Cooperation in working with others is an essential part of bus service. One of the tasks in bus service is replenishing the serving station with clean utensils, china, linens, ice, and condiments during serving hours. This must be done promptly, quietly, and in a sanitary manner. If adequate supplies are not available for the service hostess or host, they cannot provide prompt service to the customers. The person assigned to this task must be alert and keep the serving station replenished without being reminded.

Let your honesty shine. If there is a container for the tips of each waiter or waitress, put any tips you find in the right container. If there is no container and you have received no instructions, leave the money where you found it. Pocketing another's tips is dishonest, and you will be found out.

Good grooming is essential for the dining room attendant because you are constantly in view of customers. Start the day with a clean, unwrinkled uniform. If your uniform becomes very soiled, change to a fresh one, or if you are wearing an apron, turn it around. Soiled garments are an unappetizing sight to customers.

Good health is also essential for the dining room attendant. A strong back and strong arm and leg muscles are needed for heavy lifting. The use of proper lifting techniques as described in the unit on safety is essential. In addition, healthy feet are a must for constant standing and walking. Sturdy shoes are necessary to keep feet in good condition. Bare feet, sandals, or dress shoes are not acceptable for health and sanitary reasons.

The employee assigned to bus service often comes in contact with the customers. A pleasant, cheerful attitude helps make the customers feel comfortable. When customers make requests, fill them promptly. If they have a complaint or suggestion, report it to the headwaitress, headwaiter, or manager immediately.

BUS SERVICE TASKS

Cleaning

One of the most important parts of bus service is keeping things clean. A variety of cleaning tasks may be assigned depending on the job assignments at the institution or business. More customers are lost because of uncleanliness than for any other reason. Thus, keeping things spotless is a primary factor in customer satisfaction, and no cleaning task should be considered unimportant or be done in a careless manner.

Use sanitary methods in transferring supplies from the trays or carts to the serving station. Pick up utensils by their handles, never by the "business" end. Handle glasses by the stems or near the base. Pick up cups by the handle, and pick up plates and saucers by the rims. Transfer ice and condiments to serving containers with tongs, spoons, or other appropriate utensils–never with fingers. These practices help to prevent spreading disease and contaminating food. Wash your hands with soap and water after handling dirty dishes and before handling clean ones. Customers have germs, too.

When carrying loaded trays or pushing carts, watch where you are going. Do not walk too fast. As a safety precaution, go carefully through the doors to the kitchen or dishroom. This helps prevent accidents if someone happens to be coming through the door at the same time.

Keep spills wiped anywhere you see them. Spills are dangerous to everyone, including customers.

Clearing Tables

Another task classified as bus service is removing soiled items from tables and stations. Use trays or carts to save steps and to decrease the amount of time spent on the task. Again, take care to pick up glassware by the base, utensils by the handles, and plates by the rim. This practice helps protect the employee from any diseases or illnesses the customers may have.

Clear tables and stations as *quietly* and *quickly* as possible. Picking up all of one item, such as glassware, before starting with another item helps to speed the task. Dishes and flatware are very expensive items in a restaurant. Avoid breakage, damage, and loss of these items.

Scrape dishes. Stack them according to size with large dishes on the bottom. Do not stack dishes too high or in a careless manner; this increases the chance of breakage. Sliding or rubbing plates together causes scratches. Do not stack glasses or coffee cups inside one another. Glasses can become firmly stuck together, and stacked cups tip over easily. Lay cups on their sides. Place flatware in appropriate containers or together in one place. Be careful not to scrape flatware into the garbage. Do not scrape plates in the customers' view. If you cannot stack the plates because of food on them, place them aside. Do not overload the bus cart, since it is already top-heavy.

After clearing a table, wipe it clean with a towel used only for table tops (bustowel). Use a second dry towel or napkin for wiping seats in booths or on chairs. Wipe crumbs into your hand or onto a plate, not onto the floor. Wipe out ashtrays and replace them, unless you cannot get them clean. In that case, leave a clean one and take the soiled one to the kitchen for washing. If you do your job well, customers are unaware of your activities.

When depositing dirty dishes in the dishroom, do it in an organized way. Place plates of the same size in stacks and flatware in a presoak solution or in bins with flatware of the same kind. Put glasses and cups upside down in cup and glass racks. An organized dishtable helps prevent breakage and leaves space in which to work.

Replenishing Supplies

Be alert for areas that need your attention. When you are near a serving station, check for needed supplies and bring them with you as you return from the kitchen area.

At the end of the serving period, the dining room attendant may be responsible for bringing clean utensils from the kitchen to the serving station. He or she then sorts, counts, and stores the utensils in the proper place so the utensil is stocked for the next period. Any shortages in the number of items should be reported to the manager.

QUESTIONS:

1. As dining room attendant, Joe might not hear complaints from customers as often as the waitress and waiter, but what should he do when he hears a complaint?
   ______ a. Tell the waitress or waiter.
   ______ b. Report it to the manager.
   ______ c. Ignore it.
   ______ d. Discuss it with the customer.

2. The manager pointed out that getting and keeping customers is perhaps the most important aspect of food service. Many times customers are lost for reasons other than inferior food. Describe four conditions which might discourage customers from patronizing food service establishments.
   a.
   b.
   c.
   d.

3. You have previously worked as dining room attendant in a restaurant. You have been hired as a floor girl or boy in a cafeteria. List the duties that will be different in your new job.
   a.
   b.
   c.
   d.

4. List three ways to prevent breakage, damage, and loss of dishes and flatware during the clearing of tables.
   a.
   b.
   c.

5. List three sanitary methods you should use in your work.
   a.
   b.
   c.

ASSIGNMENTS:

I. Develop a check list for good grooming for a dining room attendant. Use the check list to identify where you could improve your grooming habits. When you have corrected the poor habits, describe the results to your teacher.

II. List the procedures you use now to clear and clean tables at your training station. Describe how you could improve your work regarding sanitary methods and efficiency. Try out the new plan and discuss the results with your teacher.

GROUP WORK:

I. List the duties of a dining room attendant at your training station. Discuss and compare your list with other students to see how the job differs in various food service businesses.

II. Invite a local cosmetologist to discuss grooming practices for hair and skin. Some cosmetologists will demonstrate free of charge. This can be used as a program for an FHA/HERO meeting.

III. Invite several local employers to participate in a panel discussion of the importance of good grooming practices for a dining room attendant. This could serve as a program for an FHA/HERO meeting.

UNIT XII-9

CUSTOMER SERVICE TECHNIQUES

SUBJECT: Handling Money

TASKS:

45. Itemize and total the price of each order.
46. Present check to customer.
47. Make change.

OBJECTIVES: When you finish this lesson, you should be able to

a. describe the procedure for presenting checks to customers
b. explain the procedure for making change.

REFERENCE: Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 234-237.

The main purposes of a commercial food service establishment are to serve customers and to make a profit. Therefore, both human relations skills and mathematical skills are needed by almost every employee in a food service operation. As a food service employee, you may be expected to present the check, handle money, and make change.

PRESENTING THE CHECK

It takes a real diplomat to present a check to a customer tactfully. If you fail to present it gracefully and diplomatically, you can embarrass yourself and your customer.

When the guests have finished their meal, complete the guest check away from the serving area, then present it to the host. If you do not know who the host is, place the check near the center of the table. If a businesswoman indicates she will be paying the check, respect her wishes. Some businesswomen prefer to leave the table to pay the check or to make some other arrangement when entertaining male associates or clients. If the guest is to take the check to the front of the restaurant and pay the cashier, place the check face down on the table to the host's right. Thank the guest and make a brief remark, such as "You may pay the cashier."

Another way to present the check is to place it face up on a tip tray. The host places the payment on the tray. You then take the tray, check, and payment to the cashier and return all the change on the tray to the host. Thank the guests and invite them to return again.

Checks may be paid also with credit cards. Be sure you know which credit cards are accepted by the establishment where you are employed. Check to be sure the credit card is signed by the cardholder. Search the "hot card" list or call to verify if your employer has this policy. Place the card in the stamping machine with the credit slip on top; slide the bar over both to imprint the slip. Then complete the credit slip by listing dinners, tax, and bar total on the slip as directed by your employer. Total the amount. The cardholder adds a tip if desired. Return the card, credit slip, and pen to the guest for the signature. After the slip is signed, compare the signature with the one on the card to be sure they are identical. Then return the guest's credit card.

In most fast food businesses, guests pay for their food when placing an order. Make change quickly and accurately. Study the reading assignment to learn how to make change correctly and follow any additional procedures your employer requires for handling money.

USING A CASH REGISTER

As a food service employee, your responsibilities may include opening the cash register at the beginning of the day or shift. Count the change fund to make sure the specified amount to be used as change for customers is in the cash register. At the end of the day it may be your duty to close the cash register. To close the cash register you should:

1. Count all bills and write down the total.
2. Count all coins and write down the total.
3. List all checks and write down the total.
4. List all charges and write down the total.
5. Total the figures and sign.
6. Put all the money and receipts in a moneybag and give it to the manager or your supervisor according to the policies of the place where you are employed.

QUESTIONS:

1. Describe the correct way to present a guest check if the customer is to pay the cashier.

2. Describe the procedures for accepting payment of the check with a credit card.

3. Jack is working the cash register during the noon rush. A customer hands Jack a $10 bill to pay for food amounting to $3.53. What should Jack do with the $10 bill while he is counting out the customer's change?

4. Why is the money fund (bank) in the cash register checked at the beginning of the day or shift?

5. List the steps that should be followed when closing the cash register.

6. How many times do you need to count the money when giving change to a customer?

7. Describe the counting of change for the following restaurant checks and payments:
   a. Check of $1.76 from payment of two one-dollar bills and a penny.

   b. Check of $3.15 from payment of a five-dollar bill.

   c. Check of $6.83 from payment of two five-dollar bills.

   d. Check of $17.94 from payment of a twenty-dollar bill.

8. What is the least possible number of coins you can give customers when their change is in these amounts? Put the number of coins needed in the blank beside each amount given. In the bracket, list the coins in the order you would use them in counting out the change to a customer.

Example: 59¢ ___6___ [1 fifty-cent piece + 1 nickel + 4 pennies]

a. 42¢ __________ [______________________________]

b. 63¢ __________ [______________________________]

c. 75¢ __________ [______________________________]

d. 83¢ __________ [______________________________]

e. 92¢ __________ [______________________________]

f. 20¢ __________ [______________________________]

g. 69¢ __________ [______________________________]

ASSIGNMENTS:

I. Follow the correct procedure for counting out change to a customer. (a) Write the correct denomination needed to make the change in the space provided. (b) Write how to count the change back to the customer.

	Total Bill	*Money Received*	*Correct Change Given*
1.	$1.25	$ 2.00	a.
			b.
2.	$1.25	$5.00	a.
			b.
3.	$1.79	$2.00	a.
			b.
4.	$1.79	$10.00	a.
			b.
5.	$1.79	$20.00	a.
			b.
6.	$2.35	$3.00	a.
			b.
7.	$2.35	$3.25	a.
			b.
8.	$5.13	$6.03	a.
			b.
9.	$6.66	$10.00	a.
			b.
10.	$6.66	$7.16	a.
			b.

II. For the following amounts, write the least possible number of coins you can give a customer. In the brackets, list the coins used.

a. 21¢ ____________ [________________________________]

b. 18¢ ____________ [________________________________]

c. 37¢ ____________ [________________________________]

d. 94¢ ____________ [________________________________]

e. 17¢ ____________ [________________________________]

f. 47¢ ____________ [________________________________]

III. Explain the procedures for using a cash register at your training station when you are:
   a. opening for the day.
   b. taking and recording cash register readings.
   c. closing for the day.

GROUP WORK:

I. Outline the procedures used at your training station for presenting guest checks. Form groups to discuss and compare the procedures used in various food service businesses.

II. Role play the correct ways of presenting checks to guests and making change.

III. Research types of cash registers and policies for handling money in the food service businesses where you are employed. Prepare a slide show on the correct procedures for handling money.

UNIT XIII-1

FOOD TRANSPORTATION

SUBJECT: Tray Line Assembly

TASKS:

48. Designate trays with name, room, or order number for delivery to patients, guests, or customers.
49. Place food on a portable cart and on trays in such a way that foods remain at the correct temperature.

OBJECTIVES: When you finish this lesson, you should be able to

a. list the duties on a tray assembly line
b. relate work simplification techniques to tray line assembly
c. identify the procedures for tray service
d. evaluate trays in terms of standards for tray service.

TYPES OF TRAY SERVICE

Different types of tray service are provided in health care and food service establishments. Bed patients in hospitals and nursing homes are served meals and snacks on trays. Room service in hotels and motels uses tray service to provide guests with breakfast, lunch, dinner, or snacks. Food and beverages are delivered on trays to customers in cars by carhops at drive-in facilities. Flight attendants on airplanes provide passengers with tray service.

Patient Tray Service

When organizing the dietary department in the hospital or private nursing home, the tray line assembly must be organized carefully. Because foods should be at the appropriate temperature when served to patients, trays should be assembled quickly and accurately and sent out immediately in assembly-line fashion.

The dietary aide or food service employee may rotate with other employees by performing one or more of the following job assignments on the assembly line:

1. Setting up trays for patients' food by following the individual menu card accurately.
2. Setting up the serving line with cold foods, condiments, serving containers, dishes, silver, and other items appropriate for the food to be served.
3. Working the hot or cold station on the central tray-service line.
4. Placing the appropriate food on general and modified diet trays.
5. Delivering the loaded food cart to the patient area and checking to be sure the name and room number cards are on the tray.
6. Delivering the trays to designated areas and picking up each patient's tray to be returned to the dietary kitchen.

One person is usually responsible for checking all trays to ensure that the setup is complete and that the food is served according to specifications. This task is one of the most important because it is essential that the specified amounts and types of foods have been placed on the tray. Even a small error could be dangerous to a patient.

Room Service

Room service is available in most hotels and motels. Guests make the selection of a meal, beverage, or snack item from a room service menu in their room. The guest phones the selection to a special operator, who turns the order over to a waiter or waitress. The food items are prepared in the kitchen, and the order is carried to the guest's room on a tray by the waitress or waiter.

Car Service

Beverages and food are served on trays to customers in cars by carhops. Depending on the establishment, the carhop may go to the customer's car and take the order, or the customer may order through an automatic speaker system. After the order is prepared in the food preparation area, the carhop delivers the order on a tray to the customer. Dirty dishes are left on the tray and collected by the carhop.

Airplane Service

Passenger tray service provided by airlines also calls for setting up trays. Food is prepared in the flight kitchen and transported in refrigerators and warmers. It is stored in the insulated containers until serving time. The flight attendants carry the trays of food to the passengers and remove the trays when the passengers have finished eating.

Work simplification techniques can be used in tray line assembly to eliminate unnecessary motions and wasted energy. If you have not already studied Unit VIII-5, p. 258, you should do so to learn how these techniques can make your job easier.

STANDARDS FOR TRAY SERVICE

Certain standards should be observed for setting up and serving trays. Basic principles of tray service ensure that the food served is attractive and palatable, and that it meets the expectations of patients or customers.

Principles of Tray Service

As in all other food service operations, care should be taken to ensure that when food is received it is:

1. *Attractive.* (a) Tray cover is spotless and suitable for the size of the tray. (b) Size of the tray and dishes are proportionate to the size of the meal being served. For example: A glass of milk by itself on a large tray looks lost. (c) Flatware, tableware, and glassware are spotlessly clean. Tableware and glassware must be free of chips or cracks. (d) Colors of all accessories on the tray harmonize and create a pleasing effect. (e) Food portions are arranged neatly and attractively on plates and in dishes and bowls.

2. *Palatable.* (a) Trays are served promptly with hot foods hot, and cold foods cold. (b) If delays are necessary, precautions must be taken to ensure that food is of high quality when it is delivered to patients or customers.

3. *Meets expectations of patients or customers.* Food is arranged on plates in a consistent order. This enables those who check trays to see quickly whether all items called for on the diet are provided and no extra items are included.

Individuals who are ill are usually not very interested in food. They are more likely to be more critical of the food and the service than they would be under normal circumstances. For these reasons, the food and the tray on which it is served should be prepared and arranged in an attractive and orderly manner. The appearance of the food on the tray may influence the patient's acceptance or rejection of the food. The amount and size of the food servings which the patient receives are determined by instructions from the dietitian, with some consideration for the patient's likes and dislikes. Three steps are essential in preparing the patient's tray and should be completed in a routine order. These steps include: (1) setting up the tray, (2) serving cold foods, and (3) serving hot foods.

Setting Up the Tray

In setting up the trays, one of several methods may be used, depending upon the organization of the dietary or food service establishment in which you are working. The following items are placed on the tray regardless of the tray assembly method used:

1. Tray cover (liner)
2. Tray card
3. Napkin
4. Salt, pepper, and sugar, if used (these items may be packaged)
5. Cup and saucer, or beverage glass
6. Bread and butter plate (if used)
7. Flatware (may be sacked)
8. Cold foods
9. Hot foods

The tray or menu card in a hospital or nursing home should give the following information:

1. Patient's name and room number
2. Type of diet or special foods
3. Food items

The order slip for room service should include:

1. Guest's name and room number
2. All the food and beverage items ordered and cost of items
3. Any special instructions of the guest

The order for a drive-in restaurant should include:

1. The number of the order
2. All food items ordered
3. Cost of items

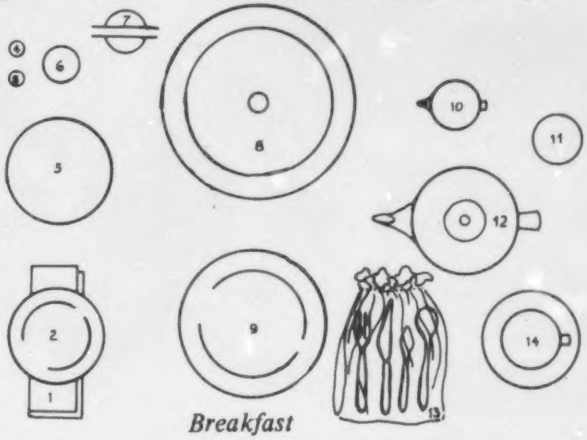
Serving Cold Foods

Some examples of cold foods which are included in tray assembly are cream, milk, bread, butter, salad, dessert, fruit juice, and fruit. These should be served so that an attractive appearance, proper temperature, and maximum sanitation are maintained. Methods of cold food service vary.

Serving Hot Foods

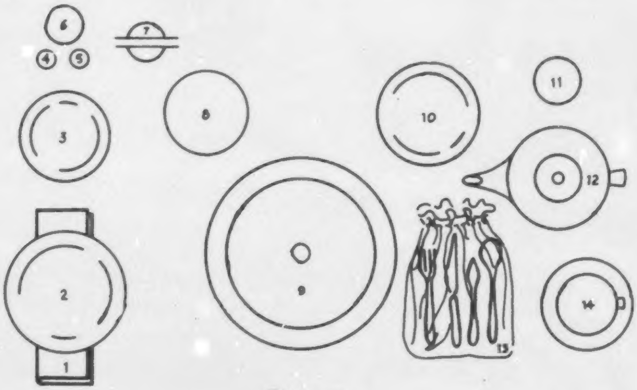
Hot foods for tray service may include soups, main courses, vegetables, and some beverages. Hot food should be served at temperatures from 175° to 180° F. (79.4° to 82.2° C.). To maintain proper food temperatures, plate covers and dishes should be preheated. A more commonly used method of maintaining correct temperature in tray service is the thermally-heated, vacuum-sealed container.

The diagrams below show typical breakfast and dinner place settings for tray service.



Breakfast

1. Napkin
2. Bread and Butter Plate
3. Cereal Bowl
4. Salt
5. Pepper
6. Sugar
7. Tray Card Holder
8. Main Plate with Cover
9. Fruit Plate
10. Creamer
11. Milk
12. Beverage Pot
13. Fork, Knife, Spoons
14. Cup and Saucer



Dinner

1. Napkin
2. Salad Plate
3. Bread and Butter Plate
4. Salt
5. Pepper
6. Sugar
7. Tray Card Holder
8. Vegetable Dish
9. Main Plate with Cover
10. Dessert Plate
11. Milk
12. Beverage Pot
13. Sacked Silverware
14. Cup and Saucer

QUESTIONS:

1. The temperature at which hot foods should be served is ______________________.
2. When processing food trays in hospitals or nursing homes, it is essential to follow the ______________________ accurately.
3. Why is it important that the tray assembly line be carefully planned?
4. Mary Lou was asked to set up a liquid nourishment tray for the patient in Room 303. Should she use a large or small tray? Why?
5. Mrs. Jones, the dietitian, told John to check the tray cards for accuracy and completeness. John should check to see that each tray card contains the following information:
   a.
   b.
   c.
6. Edward has been assigned to room service. What information should he find on the order slip?
   a.
   b.
   c.
7. Gina is working as a carhop at the local drive-in restaurant. What information will she need for each order she takes?
   a.
   b.
   c.
8. List the three steps which much be completed in a routine order when preparing for tray service.
   a.
   b.
   c.
9. Name six job responsibilities which may be assigned to the dietary aide or food service employee in the tray assembly line.
   a.
   b.
   c.
   d.
   e.
   f.

10. From the following menu, make a diagram of the serving tray and use the number preceding the food to locate it on the diagram:

(1) Tomato Juice
(2) Roast Pork (3) Gravy
(4) Baked Sweet Potato
(5) Green Beans
(6) Coleslaw
(7) Rolls (8) Margarine
(9) Caramel Custard
(10) Coffee

11. The tray in Item 10 should contain several items not listed in the menu. What are they?

ASSIGNMENTS:

I. Identify and describe the type of food distribution system used at your training station.

II. Draw a diagram of the tray setup used at your training station.

III. Describe the method used at your training station to specify various diets patients are to be served.

GROUP WORK:

I. Compare the type of food distribution system used at your training station to those used at other training stations. What work simplification techniques do you use? How do these techniques eliminate unnecessary motions and save energy?

UNIT XIII-2

FOOD TRANSPORTATION

SUBJECT: On-Premise Distribution

TASKS:
50. Deliver loaded food carts and trays to patients, guests, or customers.
51. Pick up food carts and empty trays from patients, guests, and customers.

OBJECTIVES: When you finish this lesson, you should be able to
a. differentiate between centralized and decentralized food service procedures
b. describe methods used to keep foods at proper temperatures.

REFERENCE: Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 215-216; 226-228.

On-premise food distribution is the method of moving food and beverages to patients, guests, and customers both accurately and rapidly. Efficient food distribution is necessary for food and beverages to reach their destinations at optimum quality.

TYPES OF DISTRIBUTION

Patient Service

When you deal with people who are confined, as in a hospital or nursing home, your attitude is very important. You may be told by a patient in very uncomplimentary terms what she or he thinks of the food you have brought or the way you have served it. It is important that you understand some possible reasons behind these complaints. Often people in these situations feel lonely, uncomfortable, frightened, or neglected. Also, certain medications can influence a patient's mental attitude and taste buds. Do not take the complaint personally. Try to stay calm and cheerful. If a patient complains about the food, it is better if you neither agree nor disagree. "I'm sorry" is the only response needed. If patients say they cannot eat a certain food, do not argue with them, but listen to what is said about the food. Be sure to notice any uneaten food on the patient's tray. Do not mention the uneaten food to the patient but report it to the dietary department. The dietary department will want to be aware of poorly prepared food so corrective measures can be taken. Not eating the food could complicate a patient's illness if a special diet is needed. Depending on the policy of the institution, the dietary aide or food service employee might ask the dietitian either to have someone visit with the patient about the diet or make notes on the situation and turn them in to the supervisor.

Do not make a promise you cannot fulfill. This can make a patient angry and upset. A patient in a hospital or nursing home is a customer and should be treated as one.

Another situation you might encounter in serving a patient in a room is an improper advance or use of foul language by the patient. If at all possible, ignore the remark while you continue the task you were performing. If the comment cannot be ignored, calmly leave the room. Check with your supervisor for further instructions. If the patient is mentally unbalanced, the supervisor may feel that the patient's behavior is beyond the ability of a young person to handle.

Preventing the spread of a communicable disease is of utmost importance when caring for isolated patients. Special precautions are required when serving food to isolated patients. Disposable trays, plates, and utensils are used in order to eliminate the danger of cross-infection and to meet the need for sterilization. As a dietary aide or food service employee, you may be asked to carry the meal to the door of the isolation room. You should not enter the room but hand the tray to a nurse who will serve the food to the patient. After the meal, the disposable service, any leftover food, and individually packaged condiments are thrown away.

Room Service

As a waiter or waitress, you will receive the room service order from the hotel's or motel's order clerk or from the room service captain. The type of order will determine whether you will use a tray or a portable cart resembling a table for setting up the order.

Set the cart or tray with the needed items, such as ice water pitcher and glasses, cream and sugar, salt and pepper, condiments and complete cover for the order. For a special touch, many establishments add flowers to the tray or cart.

When setting up the food items ordered, keep in mind the importance of keeping hot foods hot. Canned heat, warmers, and insulated containers should be used for maintaining the correct temperatures.

To fill the order, pick up the cold items first, saving the hot items for last. For example, select cold food and beverages and bread first; and then select the hot food and hot beverages, such as coffee. Some room service operations prefer that extra portions of bread, butter, salt, pepper, and coffee be included with the order. Be sure you understand and follow the procedures of your training station. After you have checked the order, cover all dishes and food items with individual covers or a large single service cover.

Get the order to the room immediately since promptness is expected of room service. Before opening the door, announce the arrival of the order. When you are granted admittance, carry in the tray or roll in the cart. Locate the tray or cart in a convenient location according to the guest's directions or in front of a view, television set, etc. Remove covers, pour beverages and ask if the guest would like to be served. Be polite, gracious, and professional while you are performing your tasks. Before leaving, present the check. Arrange for an appropriate pickup time.

Car Service

Car service is the distribution of food and beverages on trays to customers in cars. Depending on the food service operation, the customer will give the order to a carhop or order through a mechanical speaker system. The food is prepared in the kitchen area and placed on a tray for the *carhop* to pick up. In car service the waiter or waitress is referred to as a carhop. When working as a carhop, pick up the prepared order on a tray, check the order and car number, and carry the tray to the car. Attach the tray to the car, collect the money, and make change. After a reasonable amount of time, return to the car to collect the tray and dirty dishes. Remember the importance of a pleasant manner when serving your customers.

Airplane Service

The food that is served on planes is prepared in flight kitchens and transported to the plane in refrigerators and warmers. At serving time, flight attendants carry the trays of food to passengers. Flight attendants who are neat and cheerful and can handle spilled drinks and passenger complaints calmly and tactfully add to the enjoyment of the meal. After the meal, the trays and dirty dishes are picked up by the flight attendants.

METHODS OF TRAY DISTRIBUTION

In both tray assembly and distribution, each employee has a definite job which ensures that the food is received at optimum quality. The method of handling tray distribution is dependent primarily on the physical layout of the facility. The two common classifications of tray distribution are centralized and decentralized. When the food is served on trays in the same general area in which it is prepared, it is called *centralized food service. Decentralized food service* means that the prepared food is taken in bulk to the area where it is to be distributed. Individual trays are prepared in this area.

Both methods require an organized tray assembly technique. Portable carts are used to speed delivery of the trays from the preparation area.

Specialized equipment, which has been developed in order to reduce the problems of delivering food, includes:

1. *Bulk food trucks* – These are really portable hot food tables. They are used in food service facilities, such as hospitals and nursing homes, which have decentralized food service. Before each serving period, the trucks are plugged into outlets in the kitchen to bring the food compartments to the proper temperature. The food is put into removable containers and the truck is moved to the delivery area. Here it is plugged in again, and the food is placed on individual trays for distribution.
2. *Mobile cafeteria* – The mobile cafeteria is another type of decentralized food service. It is more elaborate and large than the bulk food trucks. The mobile cafeteria has both heated and refrigerated compartments. In addition, it carries all the necessary eating and serving equipment. A mobile cafeteria can serve up to 100 individuals per meal. Individuals order meals directly from the cart and are able to specify the size portions desired, which cuts down on food waste. The food also is served at the appropriate temperatures with fewer personnel. This eliminates the necessity of space for a floor kitchen.
3. *Electronic ovens* – In another type of decentralized service, food is prepared in a centralized kitchen, frozen, and then thawed and heated by electronic ovens in a floor kitchen. This type of service is used by "chain" operations, including hospitals and nursing homes, where the hot foods are prepared in one kitchen and transported by refrigerated trucks to another facility.
4. *Insulated trays* – These are used in many health care and food service establishments which use a centralized food service. They are made so that they stack well on top of each other and have disposable liners for food.
5. *Individual insulated containers* – These are frequently used in both types of food service operations for such food items as coffee and ice cream.

There are other systems which are used in health care and food service establishments. The physical layout of a facility and the types of residents determine the best type of food service operation.

It is important that food be distributed both accurately, according to the patients' diets or customers' orders, and rapidly. No equipment can correct the deterioration of food quality when it is allowed to sit too long before being distributed, or when it is cooked too long before serving.

To assure that patients receive correct diets, many hospitals use cards of different colors for different types of diets. It is the responsibility of each person filling patients' trays to know the type of diet indicated by each card and to follow its instructions exactly.

When moving trays or large mobile units, use safety precautions in patient areas. Avoid unnecessary loud talk or banging of dishes and other equipment. Loud talking can upset patients. Banging equipment can upset patients as well as cause damage to the equipment itself.

Many of the qualities of a waitress or waiter are needed by an employee who distributes food to patients, guests, or customers. If this is one of your responsibilities, see Unit XII-4, p. 575.

QUESTIONS:

1. The method of moving food and beverages to patients, guests, and customers is ____________________ food distribution.

2. Two methods used to distribute the food in decentralized service are ____________________ and ____________________

3. Tray distribution in hotels and motels is known as ____________________.

4. The distribution of food and beverages on trays to customers in cars is known as ____________________.

5. The distribution of food and beverages prepared in flight kitchens is known as ____________________

6. The two general types of food distribution are ____________________ and ____________________ Briefly explain each.

7. Is any one system of food distribution best? Why or why not?

8. Give two reasons for noting uneaten food left on trays by patients.
   a.
   b.

9. Give two reasons for the use of disposable service for isolation patients.
   a.
   b.

10. List four advantages of the mobile cafeteria over the standard decentralized service.
    a.
    b.
    c.
    d.

11. Place a check mark by the statements which are characteristic of centralized food service.
    ______ a. Hot foods are hot and cold foods are cold when served.
    ______ b. Trays are served in the floor kitchen.
    ______ c. The food may become overcooked and dried out before it is served.
    ______ d. The food is handled only once.
    ______ e. Complete supervision of tray preparation is in one area.
    ______ f. All trays are prepared in one area.

For Items 12-16, match the type of food service with the characteristics which describe the food service. Place the letter of the food service in the blank to the left of each characteristic. Letters may be used more than once.

Characteristics

______12. Food is loaded into bulk trucks and taken to a floor kitchen.

______13. All trays are prepared in the main kitchen.

______14. Trays are prepared in the floor kitchen.

______15. Double-handling of food is eliminated.

______16. Food is more likely to be served at the proper temperature.

Type of Food Service

a. Centralized
b. Decentralized

ASSIGNMENTS:

I. Describe the food distribution procedures used at your training station. What are some of the advantages and disadvantages of this method?

II. Outline the procedures used at your training station for each of the following:
    a. Serving delayed trays
    b. Handling guest trays
    c. Serving patients in isolation
    d. Serving a room service order

GROUP WORK:

I. Form groups and discuss and compare the procedures outlined in Assignments I and II.

II. Make posters or a bulletin board showing appropriate behavior for the health care and food service employee on patient floors.

III. Role play situations showing poor and then improved interaction between the health care and food service employee with patients, guests, customers, and other employees.

UNIT XIII-3

FOOD TRANSPORTATION

SUBJECT: Off-Premise Catering

TASK:
52. Pack dishes and utensils used in catering for transporting to and from catering establishment.
53. Pack and transport food in appropriate containers at proper temperature.

OBJECTIVES: When you finish this lesson, you should be able to
a. identify procedures for packing and transporting dishes, portable equipment, and food
b. maintain proper temperatures for foods during packing and transporting process.

REFERENCE: Weiss, Edith, and Weiss, Hal. *Catering Handbook.* New York, New York: Ahrens Publishing Co., Inc., 1971. pp. 20-21.

The off-premise caterer always goes to the customer. Off-premise catering consists of transporting food to facilities such as churches, temples, clubs, meeting rooms, and homes where the food is served for private functions. The off-premise caterer also transports food to schools, industrial plants, offices, fairs, and ballparks when fast-food service for coffee breaks, snacks, and quick meals is needed at the location.

PACKING LISTS

As an employee of a catering service, you will pack portable containers or a mobile catering truck or van with items specified on a packing list. The packing list is a guide to all equipment needed for a scheduled event. (See Figure 1.) Be sure to recheck the list before delivery is made to be certain you have packed all items specified on the list. When repacking the items used at a function, check the items with the packing list. Record the number of items returned, used, and broken. Clients are usually responsible for missing items. Give the complete packing list to your supervisor so that it can be kept in the permanent records.

FIGURE 1

Anywhere Catering Company

Organization ________________ Job No. __________
Contact ________________ Packing Date __________
Date of Function ________________ Truck No. __________
Location
of Function ________________ Driver __________

Item	*Pack*	*Ret'd*	*Used*	*Broken*	*Total*
Service plates					
Dinner plates					
Salad plates					
Butter plates					
Coffee cups					
Saucers					

PACKING DISHES, EQUIPMENT, AND FOOD

For off-premise catering, the caterer packs dishes and equipment in special portable carriers or carrying cases. These are carriers or cases designed for glasses, dishes, trays, flatware, candelabras, and chafing dishes. The carriers may be made of heavy-duty cardboard, plywood and lightweight wood, or heavy wire coated with plastic or rubber. When packing dishes for a catering establishment, be particularly careful when using cardboard boxes. If set on wet floors or on wet truck floors, the bottom of the box may give way, causing the items to fall and break.

The racks in the carriers have dividers and shelves which allow for individual storage of items. Do not nest cups but pack individually in a single layer. Do not stack more than twenty-four dishes at a time when packing for transport. Check glassware and tableware for chips, cracks, and stains as you are placing the items in the racks. Be sure carriers containing glassware are marked "Fragile–Glass!" Wrap all silver pieces, such as trays, chafing dishes, and candelabras, in cloth bags before packing, or place in cloth-lined boxes.

When packing flatware, place forks close together in a row with the tines of all the forks facing the same direction (up or down). Make a second row of forks with the tines in the same direction as those in the first row, but lay the tines of the forks on the handles of the forks in the first row. Continue procedure for other rows of forks. Pack spoons following the same procedure used for forks. Pack hollow-handled knives close together in a row with the flat side of the handle down. Reverse the handles of the knives in the second row so that the blades lie on the handles of the knives in the first row. Continue to reverse rows as you pack knives. Be sure to check all flatware for rusty or bent pieces as you are packing.

Some of the racks used in carriers are equipped with a lock-guiding device of other secure stacking features for transporting. Other racks have protrusions which allow racks to be stacked but not secured. When there is not built-in stacking security, tie the racks in place with a rope to keep the racks from tipping over or sliding in the truck. For sanitation purposes it is best to use a washable nylon rope for tying the racks.

PACKING FOOD

When packing items for transport, load the food items last. Special insulated cabinets are used for transporting food. The food cabinets are metal or plastic, square, and covered on all sides. The smaller cabinets have drop handles which do not take up space when storing or transporting, but enable one person to carry them. Large cabinets are moved by their own wheels, dollies, or by more than one person. Depending on the type of food being transported, you can place dry ice or portable heating units in the cabinets to keep food at correct temperatures. High standards of sanitation should be maintained when packing and transporting food. Be sure all food containers have tight-fitting covers. Use aluminum foil as a substitute cover when container covers are missing. Never reuse original plastic food bags to pack or transport food because of the possibility of food contamination.

Refrigerate all dairy items while in transit. Periodically check bottled drinks, milk, and dairy containers being kept cold on ice. Never allow the containers to be covered by melting ice water since water seeping into the containers could cause contamination of the contents.

During the packing and transportation of food, a container may leak or be spilled. If this happens and there is a chance the container has leaked into other food items, replace the items. Do not take chances when there is the slightest possibility of food contamination.

Pack sandwiches loosely in containers to allow cool air to circulate around the items. To transport a wedding cake or other tiered cake, remove the tiers which are separated by pillars and plates. Leave the pillars, both plain and iced, on the tiers so as not to disturb the icing. Pack the decorated tiers in individual boxes for transport. Handle the cake tiers very carefully. The bottom layer of the cake is placed on a sturdy base plate. If there is no ruffle on the base plate, check the packing list to see if a ruffle-trimmed board is to be included. The cake will need to be assembled upon delivery.

Remember that the importance of keeping hot foods hot and cold foods cold applies while transporting foods as well as when holding and serving foods. Cold foods should be held and transported at 40° F. (4.4° C.) or below. Hot foods should be held and transported at 140° F. (60° C.) or above. Do not allow food to remain at room temperature for any great length of time before serving. The importance of food sanitation is discussed in Unit II.

Barbecues are a popular catered function. When transporting equipment, cover barbecue and grill equipment with heavy canvas tarpaulins to keep the soot and smoky odors from transferring to other items. If propane gas is to be used in cooking, it is best to pack an extra tank of propane. Let the barbecue equipment cool completely before packing to return from a function. Soak newspaper in water and place on grills to cool grills down. Use hose or pour water over newspaper to speed up the cooling process. After grills have cooled down, remove and dispose of coals and ashes. Before packing grills, pots, and pans, clean with detergent and abrasive pads to remove heavy soot and grime. Of course, the barbecue equipment will need to be cleaned thoroughly when you are back at the catering headquarters.

Some catering services may ask that you pack a broom, dustpan, mop, pail, plastic bags, can openers, and items that may not be available at the site of the catered affair. Most caterers will want a first-aid kit included with the items being packed for an off-premise function.

Depending on the size of the catering service, linens, table decorations, chairs, tables, and other serving items may be owned by the catering firm or rented for a particular function. If linens are to be packed, be especially careful to keep them clean and dry. As you remove table linens after a catered function, count the napkins and cloths, throw the items onto one tablecloth, and tie into a bundle for transporting. Do not pack wet and dry cloths together because they may mildew. Spread wet cloths out to dry when you are back at your headquarters if they are not to be laundered immediately.

As an employee in a catering service, remember that efficiency and thoroughness are very important as you prepare and pack food and equipment for transport. Even the most elaborate plans cannot be successful if the food and equipment do not arrive as needed at the scheduled function.

QUESTIONS:

1. Going to the customers, transporting food and equipment, and setting up and serving food in different locations are all services offered by ______________________________.

2. A guide to all equipment needed by a caterer for a scheduled event is a(n) ______________________________.

3. For off-premise catering, dishes and equipment are packed in ______________________________.

4. The temperature at which cold foods should be held and transported is ______________ ______________.

5. The temperature at which hot foods should be held and transported is ______________ ______________.

In Items 6-16, write T if the statement is *true*, and F if the statement is *false*.

______ 6. The best dish and equipment carriers are cardboard boxes.

______ 7. Nest cups to take up less space in the carriers.

______ 8. Dishes should not be stacked more than twenty-four at a time.

______ 9. Mark all portable carriers and carrying cases "Fragile."

______10. A washable nylon rope is best for tying racks with no built-in stacking security.

______11. Silver pieces should be wrapped in cloth bags or placed in cloth-lined boxes.

______12. Food items are packed first in order to determine space left for equipment.

______13. Reusing original plastic food bags is an economical measure of most off-premise caterers.

______14. Bottled drinks, milk, and dairy containers are kept cold in transit with ice or melted ice water.

______15. Pack sandwiches loosely in container so cool air can circulate around them.

______16. Remove pillars and plates from tiered cakes before transporting.

ASSIGNMENTS:

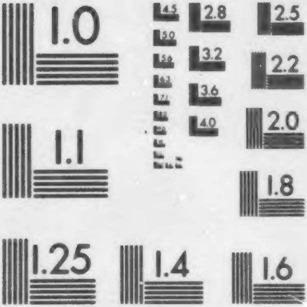
I. Describe the packing procedures you now use. After studying the lesson, how might you improve these procedures?

II. Examine booklets on catering equipment. What articles are used to protect and hold items stationary in transit?

GROUP WORK:

I. List the duties of a caterer's aide at your training station. Discuss and compare your list with other students to see how the job differs in various catering services.

II. Determine what equipment may be substituted if specialized mobile catering equipment is not available. For example, a van could be used instead of a mobile catering truck. Share your group's ideas with others.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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS
STANDARD REFERENCE MATERIAL 1010a
(ANSI and ISO TEST CHART No. 2)

UNIT XIV-1

STOREROOM CONTROL

SUBJECT:	Receiving and Issuing Procedures
TASKS:	54. Follow standard procedures for receiving food and supplies. 55. Requisition or issue food and supplies.
OBJECTIVES:	When you finish this lesson, you should be able to a. cite tasks generally performed by the receiving clerk in food service establishments b. identify forms used in receiving and issuing food and supplies c. analyze standard methods of receiving food and supplies d. identify forms for issuing supplies from the storeroom.
REFERENCE:	Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A Bennett Co., Inc., 1979. pp. 57; 60-61.

THE RECEIVING CLERK

The receiving clerk is an important member of the cost control team. Receiving clerks should be alert and accurate and have some food knowledge. Above all, they must be trustworthy. Their main job is to count and weigh the food and supplies delivered and to record what is received. The receiving clerk should also know the importance of receiving the quality ordered. However, quality is also usually checked by the manager, assistant manager, caterer, dietitian, or one of the cooks.

METHODS OF RECEIVING

In the usual method of receiving, the receiving clerk receives duplicate purchase orders which list the goods ordered. The receiving clerk then checks to see that these goods are delivered. Every food service has its own procedures, however. Always follow the directions of your supervisor.

Some establishments use a method called "blind receiving." In this method, the receiving clerk receives no information about what has been ordered. Vendors omit prices and quantities from their delivery tickets. The receiving clerk must count or weigh every item delivered and make an appropriate entry on the receiving record. This method forces the receiving clerk to count or weigh each item, not just to copy the information from the invoice or delivery ticket.

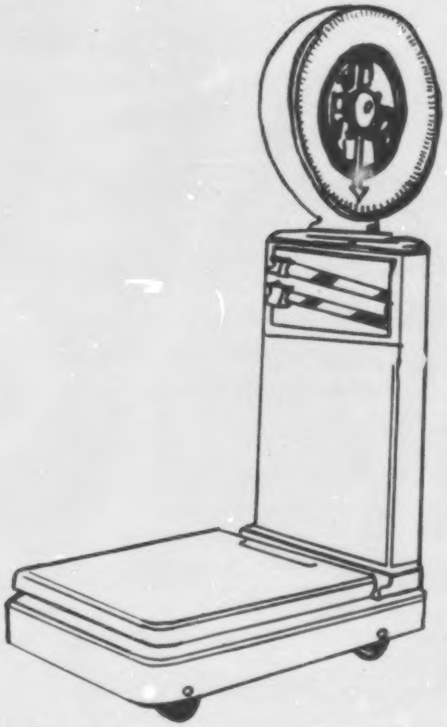
Methods of receiving vary from one food service or dietary operation to another. The important thing to remember is that food and supplies should be received and checked in an efficient and orderly manner.

In the receiving process, foods received are matched with what was ordered, using such tools as scales, thermometers, or counts to check quality and quantity. Errors in deliveries frequently occur. Unless a careful check is made of count, weight, and quality, losses can be costly.

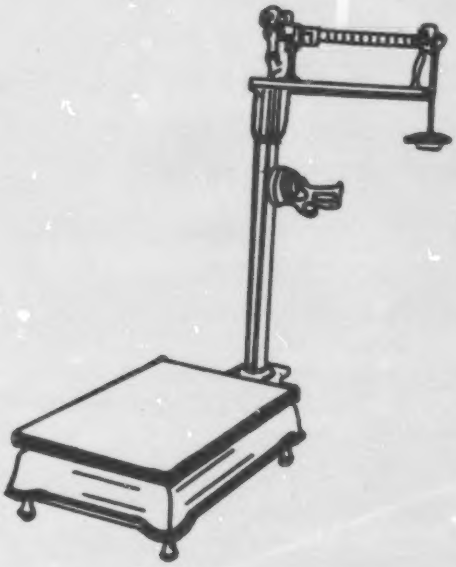
Checking Quantity

Food purchased by weight should be weighed when it is received, since weight shortages in quantity purchases are costly. Money is lost if an order is short by even a few ounces.

Automatic indiciation-type or beam-type scales are used in the receiving area for accurate weighing. Examples of these two types of scales are illustrated below.



Automatic-Indication Type



Beam-Type

Each different item should be weighed separately. Remember the weight of the packaging should not be counted as part of the weight. Even if the total weight agrees with the total shown on the delivery ticket, some items may be short and some over in weight. Items vary in price. A weight shortage in a high-priced item cannot be made up by receiving more of a less expensive item.

Items not purchased by weight should be counted accurately to make sure that all items have been received as shown on the delivery slip from the vendor. Any error in count should be called to the attention of the person in charge of the receiving area so that proper procedures can be followed.

Checking Quality

Losses can occur even when the correct quantity of goods is received if the goods are of the wrong quality. To meet quality standards, the goods delivered should be the right grade, style, pack, and fill. They should be fresh. They should have been cared for properly. If there is any question about the quality of goods delivered, the person responsible for checking quality should be called.

To inspect fresh fruits and vegetables, randomly check several from the crate. Be sure to check those in the center and bottom of the crate, too.

Take the temperature of highly perishable and chilled foods, such as milk and poultry, and of all frozen items. Observe all frozen foods for signs of past thawing and refreezing, such as ice in the bottom of containers or signs of freezer burn. Learn dating codes on perishable foods and check whether fresh items are being delivered.

Check the labels of canned foods to be sure the goods delivered are of the size and quality orderd. Check the style, pack, size, and fill against what was orderd.

Marking Merchandise Received

Perishable merchandise should be marked or tagged as it is received. The following information should be recorded on the tag or marked on the side of the case or package.

Date of receipt
Name of vendor
Description of merchandise
Weight or count when received

The unit price and total price may also be included on the tag.

Marking is done for several reasons. Marking gives a weight or count which can be checked at a later time for the accuracy of the original receipt. It aids in using items in the order they were received. The "first in, first out" rule reduces waste from food spoilage. It eliminates the need to weigh or count items still in the original package before issuing them to the kitchen.

Records and Forms

Receiving records are used to maintain a daily record of food and supplies received by the establishment. The principal ways of keeping these records are receiving sheets, individual receiving tickets, and receiving stamps. In small health care and food service establishments, the receipt of supplies may be recorded in a ledger.

Receiving sheets contain the following information: the vendor's name, the date, a description of items received, and the quantity received. The description of the item usually includes the brand name, grade, style, and other identifying information. The quantity is designated by count, weight, and size. In some instances the unit, total cost of items, and the order number are recorded also. Receiving records are usually made out in duplicate. One copy is kept by the receiving clerk and one is sent to the accounting department. A sample receiving record is shown in the following illustration.

RECEIVING CLERK'S DAILY REPORT
VENDOR:

No. ____________________
Date ____________________

Quan.	Unit	Description	Unit Price	Amount	Total Amount	PURCHASE JOURNAL DESCRIPTION		
						Food Direct	Food Stores	Sundries

____
Signature

Receiving tickets are used when merchandise is received without accompanying invoices. The same information is included on the receiving ticket as on the receiving record. Receiving tickets are sent to the accounting department for use in checking against the purchase order and invoice. When the receiving ticket is used, a receiving record is not kept. A sample receiving ticket is shown below.

MERCHANDISE RECEIVED WITHOUT BILL

HOTEL TEXAS

444 Star Avenue
Austin, Texas 78711

FROM ______________________________ DATE ____________________

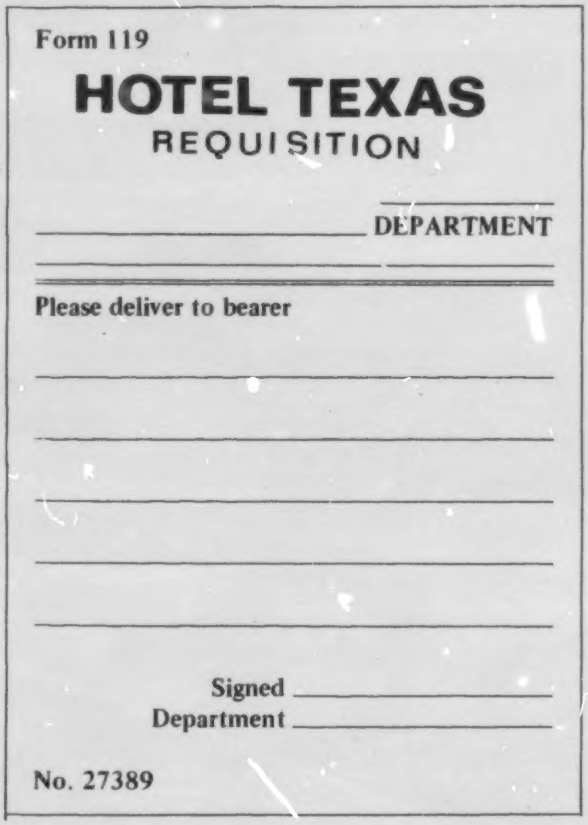
QUANTITY	DESCRIPTION	AMOUNT	

Received by

When invoices, invoice duplicates, or vendor's delivery tickets accompany a delivery, they should first be stamped with a *receiving stamp.* The receiving stamp usually contains four checkpoints. The first checkpoint is receiving. After the delivery has been checked, the receiving stamp should be initialed and dated by the receiving clerk. A sample receiving stamp is shown below.

RECEIVED BY.......... DATE ....
PRICES & EXTENSIONS CHECKED BY......
DEPARTMENT HEAD APPROVAL.........
PAYMENT APPROVAL.................

ISSUING



Form 119

HOTEL TEXAS

REQUISITION

____

______________________ DEPARTMENT

______________________ ______________

Please deliver to bearer

____

____

____

____

____

Signed ______________

Department ______________

No. 27389

The receiving clerk or storeroom worker may also issue supplies to the various departments in the food service operation. To obtain supplies, workers must complete a requisition form listing the supplies needed. The department head must sign the form before the order can be filled. The storeroom worker then fills the requisition. Supplies should not be issued without a signed requisition. Issuing supplies without authorization can cost the storeroom worker's job. The illustration shows a correctly completed requisition.

When completing the requisition form, include the date and the department requesting the supplies. Clearly state the name and grade of each item needed. A requisition for three cans of beans is not clear. This could mean green beans, lima beans, pinto beans, pork and beans, etc. Three No. 10 cans of French-cut green beans is clearer. Therefore, it is important to state the size can and the grade of each item needed on the requisition form.

QUESTIONS:

1. The person responsible for receiving food service supplies is the ______________________
2. Proper methods of quality control minimize the chances of accepting unsatisfactory merchandise. When food and supplies are received from the vendor, the check for quality is usually made by the ______________________
3. ______________________ means checking in all purchases as they are delivered.
4. ______________________ means putting the supplies away in the storeroom, refrigerator, freezer, or cupboards.
5. ______________________ means supplying each department with items they requisition.
6. A record of all food and supplies coming in and going out is known as the ______________________

7. List four qualifications a person should have to work as a receiving clerk.
   a.
   b.
   c.
   d.

8. Receiving records vary according to the health care or food service establishment. List four items which all receiving records must contain in relation to the food and supplies received.
   a.
   b.
   c.
   d.

9. It is important that only the exact amount of supplies requisitioned be issued because

10. Jody has been successful in learning the food prepararation tasks at his training station. The manager has decided that Jody also should be given an opportunity to work in the receiving area. Since he has some knowledge of food and is a dependable employee, he will assist the receiving clerk for the next few weeks. List six jobs he will do in the receiving area.
    a.
    b.
    c.
    d.
    e.
    f.

11. Betty receives the morning delivery of bakery products. She notices that three bread wrappers are broken open. Which is the best course of action for Betty to follow? Select your answer and place a check (✓) in the blank to the left of the appropriate statement. Support your answer by giving reasons for your answer. Write your reason in the space provided.

______ a. Accept the delivery and report the condition of the bread to the manager.
______ b. Accept the balance of the delivery but refuse the three loaves of bread
______ c. Check with the supervisor of the receiving area to determine the proper procedure before accepting the delivery.
______ d. Call the supplier to tell them about the three bread wrappers.

REASON:

12. James, the food service employee, is assisting the receiving clerk by checking the delivery from A & B Products Company. Using the information from the delivery invoice as shown below, complete the receiving report on p. 392.

INVOICE No. 7893

A & B FOOD PRODUCTS COMPANY
100 Main
Anytown, Texas

Order No. 725 Date: Sept. 1 19--

To: Dixie Cafeteria
10 W. 6th
Anytown, Texas

QUANTITY		ITEMS	PRICE	
AMT	UNIT		UNIT	TOTAL
12	1-lb. cans	A.B.C. Ground Black Pepper		
2	30 dz. case	Sunny Acres Grade A Large Eggs		
4	100-lb. bag	Wheatland All-purpose Flour		
6	#10 cans	Favorite Fruits Sliced Apples		
1	100-lb. sack	Idaho Delight Irish Potatoes		
1	50-lb. sack	Marketplace Onions		

RECEIVING CLERK'S DAILY REPORT
VENDOR:

No. ____________________
Date ____________________

Quan.	Unit	Description	Unit Price	Amount	Total Amount	PURCHASE JOURNAL DESCRIPTION		
						Food Direct	Food Stores	Sundries

Signature ____________________________

ASSIGNMENTS:

I. Outline the method of receiving and issuing food and supplies from your training station. After studying this unit, list any procedures that might be added that would ensure more control over storeroom supplies.

II. Ask your training sponsor for sample forms used for receiving and issuing supplies at your training station. Study these forms and practice filling them out correctly. Compare the forms used at your training station with those shown in the unit.

GROUP WORK:

I. Discuss and compare the methods, records, and forms used to receive and issue supplies in various food service operations.

UNIT XIV-2

STOREROOM CONTROL

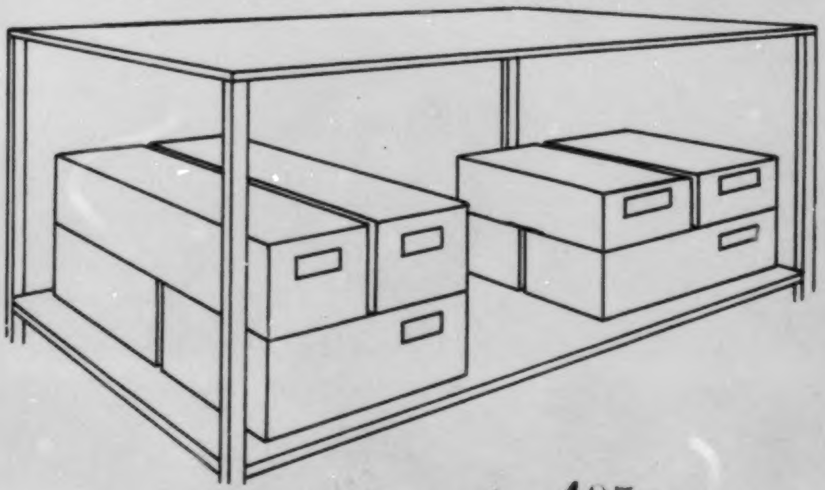
SUBJECT:	Storage of Food and Supplies
TASKS:	56. Store food and supplies in appropriate facilities at proper temperatures. 57. Assist with inventory of food and supplies.
OBJECTIVES:	When you finish this lesson, you should be able to a. describe proper storage methods for various foods and supplies b. explain the purposes of inventories in the food service operation.
REFERENCE:	Lewis, Dora S.; Peckham, Gladys C.; and Hovey, Helen S. *Family Meals and Hospitality.* New York, New York: Macmillan Company, 1972. pp. 88-91.

Storing foods and supplies in the appropriate places and at the correct temperatures helps to maintain the quality of the food. Suggestions for the storage of foods in the different types of storage facilities are given below.

FOOD STORAGE

Dry Storage

The dry storage stockroom should maintain a temperature of 55° to 65° F. (12.7° to 18.3° C.). Canned goods can be damaged if the temperature is too low or too high; therefore, a good wall thermometer should be placed in the room. Ketchup and tomato products especially spoil easily. The shelves for dry storage should be of metal and eight inches off the floor. Arrange foods according to the type of product in alphabetical order. This makes it easier to find the items quickly. When putting up a delivery, place new items behind those already on the shelf. This ensures that no food will be pushed to the back and remain in storage too long. Arranging stock with the labels toward the front also aids in quick identification of the items. Stack cans in two or three layers, depending on the shelf space. Open only one carton of an item at a time. Stack the balance on skids until needed. Cross-stack cases of food to allow for adequate ventilation. (See illustration below.)



Food items which are stored in bags, such as potatoes, should also be cross-stacked for ventilation. Store edible food supplies away from non-food supplies. This prevents foods from absorbing odors from cleaning supplies and keeps non-food items from being mistaken for food.

Refrigerated Storage

Refrigerated storage should maintain a temperature of 38° to 40° F. (3.3° to 5° C.). Store foods with sufficient space between them to allow air circulation. Store new stock behind the food already on hand. Do not place food on the floor of walk-in refrigerators. Cross-stack egg cartons to allow for air circulation. Place eggs in a section of the refrigerator where they will not freeze and where they are not near foods with strong odors. Cover butter, milk, and cream tightly, and store these items away from foods having odors because they absorb odors easily.

Store large pieces of raw meat and poultry loosely wrapped to allow adequate air circulation. Pack fresh fish in cracked ice and store at a distance from foods, like dairy products and eggs, which absorb odors.

Store fruits and vegetables at least eight inches off the floor when they are placed in walk-in refrigerators. Cross-stack foods delivered in crates.

Some food service operations provide walk-in refrigerated storage for specific types of foods. Each storage box is kept at the specific temperature recommended for foods stored there. Examples of such areas are the meat box, dairy box, fruit and vegetable box, and fish box.

Freezer Storage

Frozen foods are becoming more common in all types of food service operations. It is important to keep the temperature between 0° to 30° F. (-17.8° to -1.1° C.) to keep the food solidly frozen. When storing frozen foods, be sure the foods are wrapped well. Place new items behind the older items. Place foods so there is adequate circulation of air.

INVENTORIES

An *inventory* is an itemized list of food and supplies on hand. Most establishments serving food take physical inventories at the end of each week or month. To do this, all food items on hand are counted and listed. A perpetual inventory record is used in some institutions. It shows how much food is used on a daily basis. An actual physical inventory is done less often.

To take an inventory, use inventory sheets which list items by storage location. Usually two persons take an inventory. One person checks the shelves and calls out the items and amount on hand. The other person records this information on the inventory sheets.

It is better to start at one end of the storage area and call out items in their order on the shelf rather than to look for items using the order listed on the inventory sheet. If the latter method is used, items are easily overlooked.

The inventory is used to determine what supplies need to be ordered. It can also be used to determine the cost of food using during the last week or month. To determine the cost of food used:

List the total cost of food on hand at the previous inventory period.
Add the daily food purchases.
Subtract the present inventory on hand.
The answer is the overall cost of food used.

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QUESTIONS:

1. ______________________________ should be cross-stacked for air circulation and stored in an area of the refrigerator away from foods that have strong odors.

2. ______________________________ should be packed in cracked ice and stored away from foods that absorb strong odors.

3. Store ______________________________ and ______________________________ at least eight inches off the floor in walk-in refrigerators.

4. An itemized list of food and supplies on hand is the ______________________________.

5. The amount of food used on a daily basis is shown on the ______________________________.

6. The ______________________________ is used to count and list all foods on hand at the end of each week or month.

7. Foods arranged by the type of product and placed in alphabetical order are in the ______________________________.

8. Place a check in the blank by things you would *not* do if you were assigned to help with the storing of food and supplies. Write the reason for your choice below each statement you check.

______ a. Place new stock in front of old stock.

______ b. Cross-stack bags of potatoes.

______ c. Place foods in walk-in refrigerator close together.

______ d. Store fish at a distance from milk.

______ e. Store fruits on shelves in walk-in refrigerator, not on the floor.

ASSIGNMENTS:

I. Describe the storage procedures you now use. After studying the unit, how might you improve these procedures to maintain the quality of the products and to make it easier to gather items to fill requisitions for supplies?

II. Outline the procedure used at your training station for inventory of supplies on hand.

GROUP WORK:

I. Work with other dietary and food service employees to compare the procedures used at various training stations for the storage of food and supplies.

UNIT XV-1

INTRODUCTION TO FOOD SERVICE MANAGEMENT

SUBJECT: The Manager's Responsibilities

TASK: 58. Assist in the management of the food service establishment.

OBJECTIVES: When you finish this lesson, you should be able to
- a. define management
- b. list characteristics needed by a manager
- c. identify the elements of management
- d. outline the management process
- e. name the major functions of the food service operation which the manager oversees.

REFERENCE: Cornelius, Ethelwyn, G. *Food Service Careers.* Peoria, Illinois: Chas A. Bennett Co., Inc., 1979. pp. 45-55.

Being a food service manager is an interesting and varied job. It is interesting because so many varied activities contribute to the operation of the food service establishment, so many different people are involved, and such a variety of problems occur each day.

As a food service employee, you can reach the managerial level in several ways. You may work your way up within an organization, enter a management training program, or take courses in hospitality management or business management.

Before you set food service management as your career goal, learn all you can about the duties and responsibilities of management. Your training as a food service employee will provide excellent background for becoming a manager. The food service manager must learn and supervise every aspect of food preparation and service. The manager assumes also a variety of management level responsibilities. To manage effectively, you will need to know the answers to many questions about food service management.

What is management?

A simple definition of *management* is "getting work done when and how you want it done through others."

What characteristics are needed by a manager?

You can use the questions below to help you decide whether you would be a good manager. To be a good manager, you should be able to answer "yes" to most of the questions. If you are unsure of some of your abilities, start now to improve your score. If you must answer "no" to any of the questions, perhaps you should rethink your desire to be a food service manager.

1. *Can you accept and delegate responsibility?* Are you able to lead others? Are you willing to accept responsibility? Are you willing to let others take responsibility?

2. *Do you work well with people from all cultures and socioeconomic levels?* Do you like people? Do they like you? Do you enjoy helping others develop? Are you good at teaching others? Are you patient? Do you take pleasure in satisfying your customers? Are you willing to do the right thing even if it is not the popular thing?

3. *Are you dependable?* Are you healthy? Are you energetic? Can you maintain the hours necessary to run a food service business? Are you a good worker? Are you willing to put your job ahead of your other interests?

4. *Are you trustworthy?* Are you honest? Do you have a high moral character? Do you set a good example for others?

5. *Are you self-motivated?* Are you willing to work hard in order to succeed? Are you a self-starter? Can you work without prodding, coaching, or supervision?

6. *Do you appreciate good food?* Do you know what makes food appealing to customers? Do you know what makes food attractive? Do you know what makes it taste good? Are you willing to provide food the way the customer wants it?

7. *Do you maintain high standards of neatness and cleanliness?* Are you neat and clean in your personal appearance? Do you stress good housekeeping and food sanitation in your present job? Do you understand the difference between sanitary and clean?

8. *Are you healthy?* Do you have foot, leg, back, or other health problems that would hamper your job performance? Do you take proper precautions to keep yourself healthy when working long hours and doing hard work?

9. *Are you reasonably intelligent?* Do you have common sense? Can you add, subtract, multiply and divide? Do you pay attention to details? Can you locate information quickly? Are you able to make comparisons? Can you visualize how things should look? Can you read, write, and speak well?

10. *Are you enthusiastic?* Are you enthusiastic about the food service business? Are you an inspiration to others when problems occur?

11. *Are you ambitious?* Do you know what your goals are? Do you stick to tasks you start?

12. *Are you management-oriented?* Are you a good organizer? Can you make decisions? Are you able to adapt to change? Are you innovative? Are you impartial and objective? Can you make decisions under pressure? Can you accept making mistakes, and learn from them?

13. *Are you loyal?* Do you believe in your organization? Are you confident that the system or policy in your establishment is correct?

14. *Are you willing to observe company policies?* Even when a task could be done several different ways, are you willing to follow your company's directions for doing it?

15. *Are you willing and able to work the long hours required in food service?* Are you willing to work when your friends are playing–nights, weekends, holidays? Are you physically able to work long hours–mostly on your feet and on the go?

What are the elements of food service management?

The professional food service manager deals with six elements: (1) public, (2) personnel, (3) property, (4) products, (5) procedures, and (6) profit.

6 P'S OF PROFESSIONAL FOOD SERVICE MANAGEMENT

Element	*Definition*
Public –	Public relations with both customers and the community
Personnel –	Owners and staff of the food service establishment
Property –	Food service tools, equipment, and facilities
Products –	Food and supplies used in food production and service
Procedures –	Production techniques and methods of operation
Profit –	Difference between income and expenses

The *management process* involves several steps: planning, organizing, directing (which includes supervising, controlling, and coordinating), and evaluating. The food service manager uses these steps in running the food service operation. Each step requires the use of basic management tools. The tools help to answer the questions posed at each step.

MANAGEMENT PROCESS

Steps	*Tools*	*Questions*
Planning is "thinking ahead." It requires the ability to predict what may happen based on past experiences.	Budgets Records of past operations Plans and specifications Layouts Market studies Menus	What are the objectives or goals of the food service establishment? What facilities and equipment are needed? What food and supplies are needed? How will they be stored? What do customers want? What jobs must be done? How many workers are needed and with what talents?
Organizing involves creating the structural framework within which work will be done. Organization is often shown by an organizational chart which shows the responsibilities and authority of each person.	Organizational chart Work flow charts	How should workers be grouped to get the work done the best way? What lines of authority should exist among the people in the organization? How many levels of management are needed?

Steps	*Tools*	*Questions*
Directing involves supervising, controlling, and coordinating.		
Supervising means overseeing whether workers are carrying out the plans, policies, and directives of the management.	Policy and procedures manual Job descriptions Performance standards Menus Work schedules	What are the current plans, policies, and directives of the management? What is considered acceptable performance in each job? What motivates workers to do their best? What rewards and punishments will work for each worker?
Controlling is seeing that the objectives are carried out in the manner prescribed by the management.	Market and sales analysis Product expertise Standardized recipes Quality controls Portion controls Cost controls Work analysis studies Budgets Break-even analysis	Do the items offered meet the current needs of consumers? Are the products following the overall plans of the operation? Are quality standards being maintained for all menu items? Are the correct size portions being served? How do food costs relate to selling price? How do actual sales compare to the potential sales from food purchased? Why are food costs increasing? Are labor costs reasonable? What changes could reduce labor costs? What information is needed for preparing a budget? How can objectives be met through budgeting? How much in sales is needed in order to break even?
Coordinating assures that the operations of different departments are working well together.	Work schedules Work flow charts Facilities layout Inventories	What corrective actions are needed? What problems exist? What is the cause of a problem? How can a problem be resolved?
Evaluating involves finding out how well the business is doing.	Balance sheet Profit-loss statements Reports Merit-rating plans	What is the financial condition of the business? How effective are the workers?

The food service manager must use effectively the tools available to answer the questions in each step of the management process.

What are the food service manager's responsibilities?

Certain functions must be performed in any food service facility. In small establishments several functions may be the responsibility of one person. In large establishments one person may be responsible for only one function. Accordingly, the food service manager's responsibilities may include one or more of the functions described below.

FOOD SERVICE FUNCTIONS

Function	*Description*
Policy making	Policies provide guidelines for operation. Policies generally deal with wages, vacations, holidays, personnel, customers, and operations. Policies may be established by owners or by the manager. They should reflect the objectives of the establishment. Enforcement of policies may be assigned according to roles.
Menu planning	Menu plans are based on needs and desires of customers, type of service, size of operation, limitations of equipment, number and abilities of employees, market price and availability of food, variety and appeal, and nutritional factors.
Purchasing	Purchasing involves ordering, receiving, storing, inventorying, and dispersing food and [illegible]ies. It influences the selling price and the quality of menu items.
Personnel management	Personnel management involves hiring and training staff. It includes organizing personnel, delegating responsibilities, motivating employees, communicating with employees, enforcing rules, disciplining, controlling absences, and firing when necessary.
Production	Production includes food preparation, cooking, dish and pot washing, and service. Production also involves recipe standardization, quality and quantity control, and scheduling.
Merchandising and public relations	Merchandising involves market analysis, forecasting, advertising, and promotion. Public relations includes relationships with employees, customers, and the community.
Accounting and recordkeeping	Accounting and recordkeeping include budgeting, accounting, cost control, and money handling. Labor records may include payroll records and employment records.
Maintenance	Proper maintenance of facilities and equipment is a major responsibility. It may involve contracting services for cleaning, garbage and rubbish removal, pest control, and repairs. Preventive maintenance ensures safer and more efficient equipment. Ongoing training and supervision of employees is necessary to be certain that procedural standards are maintained.
Sanitation and safety	Sanitation includes dealing with the health department and avoiding food contamination. Safety involves protection of employees and customers, first aid, handling employee accidents and compensation claims, and handling customer accidents.

Information on purchasing, production, merchandising and public relations, accounting and recordkeeping, and laws and regulations affecting food service are included in the remaining lessons in this unit. Information on common policies of food service establishments is included in Unit I. Basic information on menu planning is included in Unit IV. Information on maintenance, sanitation, and safety are included in Units II and III. You may wish to review these units with the manager's responsibilities in mind.

QUESTIONS:

1. Define management.

2. Name five characteristics needed by a manager.
   a.
   b.
   c.
   d.
   e.

3. Name and define the six elements of management.
   a.
   b.
   c.
   d.
   e.
   f.

4. Name and describe the four major steps in the management process.
   a.
   b.
   c.
   d.

5. List five functions for which the food service manager is responsible.
   a.
   b.
   c.
   d.
   e.

ASSIGNMENTS:

I. Ask the manager of the food service establishment where you work to describe the manager's responsibilities in that facility. Is one manager responsible for all the functions of the food service facility, or are management responsibilities shared by several persons? If management responsibilities are shared, who is responsible for each function?

II. Ask the manager of the food service establishment where you work to acquaint you as time permits with the tools used in each step of the management process.

GROUP WORK:

I. Poll the managers of the food service establishments where you are employed to obtain a list of characteristics they feel food service managers must have. Compare the list with the one in the lesson. Which characteristics did the manager feel were most important?

II. Invite a food service manager to class to discuss the manager's responsibilities and problems in dealing with the six elements of food service management.

UNIT XV-2

INTRODUCTION TO FOOD SERVICE MANAGEMENT

SUBJECT: Purchasing

TASKS: 58. Assist in the management of the food service establishment.

OBJECTIVES: When you finish this lesson, you should be able to

a. describe the duties of the food and supply buyer
b. list basic principles for purchasing food and supplies
c. explain the steps in purchasing food and supplies
d. explain why exact specifications are needed for purchasing food and supplies
e. identify sources of market information
f. name forms used in buying food and supplies
g. identify sources of institutional food and supplies
h. describe management's role in receiving, storing, and issuing food and supplies
i. apply purchasing principles to actual food service situations.

REFERENCES: Eshbach, Charles E. *Foodservice Management.* 3rd ed. Boston, Massachusetts. Cahners Books, 1979. pp. 167-186.

Lewis, Dora S.; Peckham, Gladys C.; and Hovey, Helen S. *Family Meals and Hospitality.* New York: The Macmillan Company, 1972. pp. 94-102.

Weiss, Edith, and Weiss, Hal. *Catering Handbook.* New York, New York: Ahrens Publishing Company, Inc., 1971. pp. 89-90; 94-99.

The food and supply buyer must obtain the right products at the right time and price. Food production begins with food and supply purchasing. The menu items served cannot be better than the foods used to prepare them. Or as one truism says, "Good food is not cheap, and cheap food is not good."

The buyer for the food service operation is faced with numerous decisions in meeting food and supply needs. Quality is essential, but intended use must be considered also. Most food services use fixed or rotating menus. The buyer should study the use of food and supplies in the establishment and work with the food preparation staff to determine what is required. Standards should be set for each item used. Only when the buyer knows what is needed can those needs be met by effective buying.

THE BUYER

The person who is in charge of buying food and supplies is called a *buyer*, a steward, or a purchasing agent. In a small restaurant, the manager or a chef may do the buying. To be an effective buyer, one must have practical food knowledge and experience. Knowledge needed by the food buyer includes:

1. Menu requirements of the establishment
2. Sales forecasts for the coming period
3. Amount on hand
4. Money available for purchases
5. Methods of quantity cookery and food production
6. Basic cuts of meats
7. Grades and standards for various foods
8. Methods of processing, grading, sizing, and packaging fresh, canned, frozen, and dehydrated fruits and vegetables, groceries, and staples
9. Quality tests for various products
10. Weight considerations for food purchases
11. Ways to determine the advisablity of using prepared or semi-prepared foods to save labor in the kitchen
12. Equipment, utensils, and supplies used in food service establishments
13. How to write purchase specifications for food and supplies
14. The market system, including crop conditions, sources of supply, and seasonal price variations
15. Purchasing procedures
16. Business law and the specific regulations governing the sale of food and beverages
17. Past buying records
18. Procedures for developing an order
19. Procedures for ordering staple items
20. Procedures for obtaining bids, contract buying, and working with salespersons
21. Receiving and storing procedures, and controls

The food buyer must also have a high standard of ethics. One author[1] proposes the following code of ethics for food buyers:

1. Be courteous at all times.
2. Establish regular hours for salespersons to call, and adhere to this schedule; see out-of-town salespersons at once, if convenient. See everyone, but devote only the time needed to promote purchasing business.
3. Be fair. There must be give-and-take in all purchase situations.
4. Keep a sense of humor.
5. Use rational motives in buying. Evaluate all factors.
6. In dealing with competitors, do not play one against the other. Do not disclose another's prices, and do not pass information on.
7. Use the company's money as you would your own.
8. Do not discuss business affairs out of the office.
9. Set a high standard of conduct, and let others benefit by it.
10. Never compromise your freedom of action as a buyer by accepting invitations or favors from a supplier.

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[1] Kotschevar, Lendal K. *Quantity Food Purchasing.* 2nd ed. New York: John Wiley & Sons, Inc., 1975. p. 24.

PURCHASING PRINCIPLES

Most buyers observe several basic principles when purchasing food and supplies. These principles are:

1. *Identify items to be purchased.* Always start with the menu and price policy when planning food purchases. Consider how and when the items will be used. Know how much storage space is available.
2. *Use amount on hand as a basis for deciding how much to order.* Inventory records should show how much of each item is on hand.
3. *Let past use and expected use guide you in deciding how much to order.* Accurate sales records and projections aid in planning purchases.
4. *Buy for a set period of time.* This helps prevent overbuying or underbuying.
5. *Keep inventories as low as possible to keep costs down.* A large food and supply inventory may result in loss of quality, pilferage, waste, excessive labor for handling, errors in inventory and record keeping, and tying up funds needlessly.
6. *Order to specification.* Describe both quantity and quality of items needed.
7. *Buy the quality needed at the lowest cost.* Compare prices from several sources. Compare end cost of items in several forms (raw, semi-prepared, convenience) and grades. Higher purchase costs may actually result in lower end costs for some items.
8. *Beware of bargains.* Consider end cost as well as purchase price when comparing items.
9. *Deal with reliable and reputable suppliers.*
10. *Purchase locally from a few suppliers unless substantial savings can be made otherwise.* Purchasing from local suppliers makes communication easier. It is also easier to obtain food or supplies in case of emergency. Do not try to deal with too many suppliers.

Be familiar with standard abbreviations. "AP" means "as purchased." "EP" means "edible portion." "FOB Dallas" would mean that "shipping was *free on board* to Dallas, but shipping from Dallas would be charged."

STEPS IN PURCHASING

The steps for purchasing may be summarized as follows:

1. Determine what is needed.
2. Determine the quality and quantity desired for each item.
3. Obtain price information from several sources, at least periodically.
4. Select the supplier and place the order.
5. Follow up on the order, if needed.
6. Check the invoice against the order for accuracy.
7. Receive and inspect the goods.
8. Complete the necessary records.

PURCHASING SPECIFICATIONS

The food and supply buyer must know the intended use of each item purchased so the right quality can be ordered. The buyer must know also the quantities used regularly so the right amounts and sizes can be ordered. Quality and quantity information are used to make *purchase specifications* for each item ordered. Several types of specifications are used.

Specification	*Use*
Wholesomeness	The product is healthful and nutritious.
Use of Product	This aids in choosing the appropriate type or grade, or in making substitutions when necessary.
Grades	Classification of foods by a descriptive term or a number to ensure uniform quality.
Container Sizes	Choose an amount that can be used in a reasonable period of time without waste.
Yields	Number of usable portions of the amount purchased.
Financial Factors	Seasonal price variations, peak demand periods, quality variations, and overall serving costs.
Other Considerations	Specifications for weight, size, count, pack, style, or degree of ripeness also may be given when appropriate.

For each item ordered give the pricing unit as well.

When standardized recipes are used, purchase specifications can be developed for each recipe. The buyer then keeps a file of *specification cards* for all foods used in the food service operation. The specification cards contain all the information the buyer needs to order the item. Specifications include standards of wholesomeness, quality, and type and size of container. The cards are filed alphabetically or numerically for easy reference. Suppliers and current prices for the items are recorded on each card. If specifications are changed, every worker handling the product must be instructed and shown how to use the product.

Grades

Many foods are classified according to standards of quality or *grades* from most to least desirable with an indication of possible uses. Most grades are assigned by governmental agencies according to strict criteria. Grades can refer to appearance, color, uniformity of size, or degree of ripeness and wholesomeness. Because of the importance of meat, poultry, and seafood on the menu, the buyer should learn the cuts of these items and quality characteristics of each grade. The buyer should become familiar also with the grades used for other foods. Knowledge of various food grades aids the buyer in determining the best grade for the intended use of the food and in making substitutions when necessary. You may find it helpful to study the buying and grade information in *Foodservice Management,* pp. 187-284.

Sampling

The food buyer may find it helpful to sample products before buying them in large quantities. The buyer can try products before making large purchases in several ways. One is to invite the supplier to provide samples for inspection. Another is to attend periodic tastings held by the supplier. A third is to purchase and try a small amount of the product. This method provides an opportunity for yield testing and preparation time comparisons.

SOURCES OF MARKET INFORMATION

In addition to obtaining price quotations from competing suppliers, the food buyer should make use of other sources of market information. These sources include:

1. Federal and local government releases in daily newspapers and in newsletters. These contain information concerning commodity food prices, crop conditions, and other valuable information.
2. Local trade sheets.
3. Radio and television programs.
4. Commercial market reports.
5. Price quotations from suppliers.

PURCHASING FORMS

Completing the necessary forms is an important part of buying. Buying needs are usually stated on market quotation sheets or purchase orders. Requisitions may be used within the establishment to withdraw supplies from inventories on hand or to request that items be ordered. Policies must be established regarding who can sign purchase orders or requisitions. Procedures for using delivery and inspection forms, signing invoices, and so on also must be established.

Purchase Order

The *purchase order* (P.O.) is a form which the buyer fills out to order food and supplies. The sources of the products are called *suppliers.* A separate purchase order must be written for each supplier. Staples may be ordered from one supplier, meat from another, and produce from a third.

Study the sample purchase order in Figure . Each purchase order is given a number. Two copies of the order are prepared listing the items ordered, the price, and delivery information.

The delivery date and time of delivery is important. Sometimes the supplier cannot deliver an item by the date needed. Then the buyer can be told in time to order the item from another supplier.

The columns on the purchase order are for the buyer to write the quantity, unit, unit cost, and total cost for each item needed. Each item should be described clearly. Writing "beans" under Description of Item would not tell the supplier what is needed. The description, "French cut canned green beans," is much clearer.

The quantity of food and supplies ordered varies with the type and size of food service operation, the amount of storage room, and the nature of the product. Staple foods can be ordered in large quantities since they keep longer than other foods. The buyer must be sure that enough storage room is available. Other foods, like fresh fruits and vegetables, spoil very quickly. These foods must be ordered in small quantities and delivered often.

The *unit* column is used to record the size or type of container in which the food is sold. Examples of units are 100-lb. sack, gal. can, lb., or case.

The *unit price* is the price paid for one unit. For example, the unit price for tomatoes might be 59 cents per pound. The unit price for bread might be 45 cents per loaf.

The *total cost* is the price paid for the amount ordered. To find the total cost, multiply the unit cost by the quantity ordered.

Date ____________

Ship via ________

Terms ___________

PURCHASE ORDER

Anytown Restaurant
130 Tenth Street
Anytown, Texas 79000

No. ________

The above number must appear on all shipments and invoices.

SUPPLIER ______________________________

ADDRESS ______________________________

CITY and STATE ______________________________

DELIVERY DATE ______________________________

PLEASE FURNISH THE FOLLOWING—ALL CARRIERS' CHARGES PREPAID

QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	AMOUNT

APPROVED ____________________
Signature

Make all deliveries at rear entrance.

One copy is kept in the buyer's files; the other is sent to the receiving clerk. In some cases a third copy is forwarded to the supplier to confirm the order.

Some advantages of using the purchase order are:

1. It provides a complete record of the order for each supplier.
2. It provides a guide for the receiving clerk, allowing time to take action on merchandise late in arriving, and it indicates immediately overshipment or undershipment of orders.
3. It provides the receiving clerk with an immediate verification of invoice prices with accepted quotations.

SOURCES OF SUPPLY

1) *By Type of Supplier*

Food and supplies may be purchased from several types of suppliers. *Suppliers* are also called purveyors, vendors, or dealers.

2) *By Type of Food*

Perishable foods make up the largest part of the total food purchases in many food service establishments. These foods include meats, poultry, seafood, fruits, vegetables, butter, and eggs. These items must be purchased frequently. They vary more in both quality and price than other food items. For those reasons, they require more of the buyer's time and effort.

Perishable foods are usually purchased from any of several suppliers. Quotations are obtained from each, then the order is given to the one offering the lowest prices. This type of buying is done usually by telephone, but it may also be done through salespersons who call on the food service establishment, or through visits to the market. Perishable foods should not be purchased for more than two or three delivery days in the future.

Staple foods are usually purchased from salespersons who call upon the buyer regularly. These foods include processed foods, packaged foods, and other groceries. Because these foods vary less in quality than perishable foods, they can be purchased on a more routine basis. Sources for staple foods include wholesale grocers or jobbers who specialize in institutional products, and national food manufacturers who may sell direct or through distributors. The establishment may choose to stock about one week's needs of staple foods plus a 50 percent safety factor.

Prepared and convenience foods, such as bread, rolls, pastry, milk, ice cream, and coffee, are often purchased regularly from one source. Deliveries may be made daily or several times weekly.

CHOOSING SUPPLIERS

The buyer must consider a variety of factors in choosing a supplier. The buyer may choose a supplier because of the quality of the products and additional services. Such considerations include:

1. Does the supplier generally have or quickly obtain the food or supplies you need?
2. Does the supplier maintain a large enough stock to meet the needs of customers?
3. Will the supplier deliver goods when you need them? Will the supplier make emergency deliveries?
4. Does the supplier offer credit?

5. Will the supplier store items for you and deliver the items as you need them?
6. Does the supplier enable you to cut labor costs by partially preparing some foods? For example, can you obtain scrubbed and wrapped potatoes for baking, peeled potatoes, or diced celery and onions?

INSPECTION, RECEIVING, AND STORAGE

The food buyer should take time to check major deliveries. The buyer should make certain that the quality and specifications of the merchandise delivered agree with the order. Count and weight checks may be left to the receiving clerk.

It is essential that the receiving clerk either check goods delivered to be sure they match the order, or record everything delivered, depending on the system used by the establishment. Items, amounts, and quality must all be checked. Items not conforming to specifications should not be accepted. All items should be checked for damage. Failure to inspect deliveries adequately can mean higher costs, lower quality, or shortages. Poor inspection and receiving procedures can also lead to theft, fraud, and other problems. Adequate inspection and receiving procedures are the first step in good inventory control.

Inspection and receiving procedures are described in Unit XIV-1. Inspection must be made upon delivery unless the buyer and seller have agreed upon a different procedure.

When deliveries are not satisfactory, the seller must be notified. Arrangements should be made to return the merchandise or to obtain proper credit. The person accepting delivery of the merchandise should always note exceptions when signing delivery papers.

Careful consideration must be given to storage of food and supplies once they are delivered. Few food items are ever improved by storage. The goal is to store under the best possible conditions for as short a time as possible. Storage of food and supplies is discussed in Unit XIV-2.

Strict storeroom controls are necessary to prevent pilfering or spoilage. To prevent theft the following rules should be observed:

1. Keep the storeroom door locked.
2. Safeguard the storeroom keys when not in use.
3. Do not permit unauthorized persons to enter the storeroom.

To prevent losses from spoilage, avoid an excessive storage time, improper ventilation, or inappropriate temperatures. Also avoid contamination by vermin, rodents, leaky pipes, dirt, dust, broken containers, or other foreign substances.

Methods for issuing food and supplies must be strictly observed to prevent pilferage and waste. Methods for issuing food and supplies are described in Unit XIV-1.

Both perpetual and physical inventories of food and supplies are needed to control costs. *Perpetual inventories* are daily records of food and supplies delivered, and food and supplies used. *Physical inventories* are occasional actual counts of food and supplies on hand. Any differences between the two inventories should be investigated. Differences may be caused by illegible requisitions, incorrect pricing, arithmetic errors, shrinkage, spoilage, or pilferage.

QUESTIONS:

1. List five things the buyer must know to be effective.
   a.
   b.
   c.
   d.
   e.
2. List five principles in a code of ethics for purchasing food and supplies.
   a.
   b.
   c.
   d.
   e.
3. List eight purchasing principles.
   a.
   b.
   c.
   d.
   e.
   f.
   g.
   h.
4. List the eight steps in purchasing.
   a.
   b.
   c.
   d.
   e.
   f.
   g.
   h.
5. List five types of information which should be given in forming purchase specifications for each item ordered.
   a.
   b.
   c.
   d.
   e.
6. List three sources of market information the food and supply buyer should use.
   a.
   b.
   c.

7. Name a type of form used by food service establishments for purchasing.

8. What is the *grade* of a product?

9. List four factors a buyer might consider in choosing a supplier.
   a.
   b.
   c.
   d.

10. Give three storeroom controls necessary to prevent theft.
   a.
   b.
   c.

11. Give three requirements of the Federal Food, Drug, and Cosmetic Act of 1938.
   a.
   b.
   c.

12. List three additional acts which regulate the foods sold.
   a.
   b.
   c.

13. Name two methods used for ordering staple items.
   a.
   b.

14. Describe three basic features often included in a policy on relationships with salespersons.
   a.
   b.
   c.

15. Describe the reason each food additive listed below is added to foods.
   a. Ascorbic acid

   b. Antioxidant

   c. Calcium and sodium propionate

   d. Stabilizer

   e. Monosodium glutamate

   f. Coloring agents

   g. Vitamins A and C

In Items 16-21, match each purchase specification with its use in purchasing food and supplies. Place the letter of the specification in the blank to the left of its use. Use each letter only once.

Use

_____16. Determining how healthful and nutritious a product is

_____17. Choosing the appropriate type or grade in making substitutions

_____18. Selecting items with appropriate characteristics

_____19. Buying amounts that can be used in a reasonable time without waste

_____20. Buying right amount for number of portions needed

_____21. Eliminating menu items or making substitutions

Purchase Specifications

a. Container sizes
b. Financial factors
c. Grades
d. Use of product
e. Wholesomeness
f. Yields

ASSIGNMENTS:

I. Study *Foodservice Management* by Eshbach for specific information on purchasing beef (pp. 187-220), canned fruits and vegetables (pp. 221-241), eggs (pp. 242-258), and dairy products (pp. 259-284) as appropriate for the food service establishment in which you are employed. Note how to know what is needed, sources of supply, product information, packaging, label requirements, grades, and specifications for the products used where you are employed.

II. Study the labels on ten different types of products used in the food service establishment where you are employed. List the additives found in each product. Note the grade, if any, of the product. Look up the characteristics of the grade in *Family Meals and Hospitality*. (pp. 99-100.)

III. Observe the container sizes used in the food service establishment where you work. In what quantities are the foods purchased? For example, case, pound, carton. What container sizes are used for various foods?

GROUP WORK:

I. Make a list of the suppliers from which food and supplies are purchased in the food service establishments where you are employed. Find out what type of supplier each is. How many suppliers are used for each type of food? How often are deliveries made? Who serves as buyer in each establishment?

II. Compare the inspection, receiving, and storage procedures used in the food service establishments where you are employed.

UNIT XV-3

INTRODUCTION TO FOOD SERVICE MANAGEMENT

SUBJECT:	Production
TASK:	58. Assist in the management of the food service establishment.
OBJECTIVES:	When you finish this lesson, you should be able to a. describe problems in hiring and keeping good food service employees b. outline procedures for hiring and training new employees c. describe methods for controlling labor costs d. describe methods of quality control used in food service e. identify advantages and disadvantages of reducing food preparation using various techniques.
REFERENCES:	Eshbach, Charles E. *Foodservice Management.* 3rd ed. Boston, Massachusetts: Cahners Books, 1979. pp. 158-166. Weiss, Edith, and Weiss, Hal. *Catering Handbook.* New York, New York: Ahrens Publishing Company, Inc., 1971. pp. 48-55.

Control of production from food preparation to service of the food is an important management function. Production management involves effective staffing, scheduling, cost control, and quality control. These measures ensure that quality foods are produced in the quantities needed at a reasonable cost, and that they are served correctly and efficiently.

STAFFING

One of the most important elements in the food service operation is the staff. These are the people the manager or supervisor must hire, train, schedule, supervise, and discipline, if necessary.

Hiring

Problems related to the food service industry make getting and keeping good food service workers difficult. These problems include:

1. A shortage of both skilled and unskilled employees.
2. Very high turnover of food service employees, especially at the lower levels.
3. One of the lowest productivity rates of all industries.
4. Difficulty in providing adequate training for workers.
5. Low wages compared to other industries.
6. Less than desirable working conditions.
7. Amount of physical work required in food service jobs.
8. Long hours, particularly for management.
9. Undesirable working hours, including nights, Saturdays, Sundays, and holidays.

To operate effectively, the manager must hire employees who have or can learn the skills needed. To do this, competitive wages must be offered. Potential employees must be carefully screened. References must be checked to prevent hiring an undesirable employee.

Orientation

New employees should be trained carefully. An orientation should be provided to help new workers get started. During the orientation:

1. Explain the type of operation used and the contribution the worker will make.
2. Inform the worker about benefits provided, such as vacation, sick leave, meals, and insurance.
3. Introduce the new worker to co-workers and supervisor.
4. Provide a tour of the facility pointing out restrooms, lockers, and where the employee will work.
5. Explain routines, rules, and safety regulations. Provide a copy for the employee.
6. Introduce the employee to the job to be done. Show the worker where to obtain the food, supplies, tools, and equipment needed. Show the worker how to perform each task. Show the worker what to do with finished products and waste.
7. Check the new employee's work periodically. If problems occur, provide additional training and assistance as needed.

Training

Training is needed for new workers, when procedures are changed, when new equipment is purchased, or when new facilities are opened. To get the best results from training efforts:

1. Explain to the worker why training is needed.
2. Let the worker help set goals.
3. Try to teach a complete task in one session.
4. Teach tasks in the order in which they are completed.
5. Encourage questions.
6. Stress the positive and pleasant aspects using praise and ego-building techniques.
7. Stress key points and reasons for each step.
8. Keep training sessions short, 15-20 minutes each.
9. Allow time for practice.

LABOR COST CONTROL

Labor costs have become an increasingly important part of food service operation. In fact, labor costs are sometimes greater than food costs. Labor costs include all expenses related to employment of a worker. These costs include administrative expenses, as well as salaries and wages, vacation and holiday pay, employee's meals, Social Security taxes, worker's compensation insurance, health and life insurance. These expenses must be totaled to find actual labor costs.

Job Description

The first step in controlling labor costs is to analyze the work being done. *Job analysis* identifies the tasks performed by each worker. *Task analysis* identifies the steps in performing each task. Questionnaires, interviews, and observations are used to gather this information. This information is used to write a description of each employee's job called a *job description.*

Scheduling

The next step is to schedule personnel to fit the work load. Production requirements vary from meal to meal, day to day, and week to week throughout the year. Patterns can be determined by the number of meals served during a given period. Scheduling is particularly important to the caterer. Most caterers prepare a detailed schedule for each function. Efficiency is essential to ensure success of the function and to control costs. Production requirements may vary greatly in a catering establishment. To maintain a regular staff, caterers often use their staff to prepare convenience products between engagements. Several techniques may be utilized in production scheduling:

1. *Split-shift scheduling.* Workers not needed are released between meals. This type of scheduling is often used for servers.
2. *Irregular scheduling.* Starting times vary from one worker to another and from day to day. The purpose of this type of scheduling is to increase efficiency and avoid overworking or greatly inconveniencing any worker.
3. *Use of part-time workers.* These workers are often used to increase the staff during peak work loads. Additional personnel are often needed for large catered function.
4. *Use of staffing tables.* These tables aid in scheduling workers by predicting the number of guests expected each day for each meal.
5. *Labor cost budgets.* Such budgets aid in scheduling by allotting a given amount of money for a given volume of sales. The *budgets* are based on past labor and sales figures.[1]

Production schedules are used in food service establishments to help control costs. A *production schedule* provides a record of the foods prepared for a meal. Before the meal is prepared, management uses past records to decide how many servings should be prepared. Recipes are prepared in amounts to yield the number of servings needed. However, the actual yield may vary, so it is recorded too. The number of customers served and the amount left over are recorded after the meal. This record aids the manager in planning use of leftovers and the number of servings to prepare for the next meal. Figure 1 shows a sample production schedule.

FIGURE 1
Production Schedule

Station ____________________ Workers ____________________
____
____
Manager ____________________

Number of Servings Prepared	Menu Item	Expected Yield	Actual Yield	Number Served	Amount Left over

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[1] Stokes, John W. *How to Manage a Restaurant or Institutional Food Service.* Dubuque, Iowa: Wm. C. Brown Co., Publishers, 1967. pp. 241-243.

Labor Costs

Cost comparisons are a useful means of checking actual labor costs. Stokes gives these examples of labor cost comparison methods:

1. *Profit and Loss Statement.* Divide labor costs by total sales to find the labor cost percentage.
2. *Comparisons Between Operations.* Comparing costs of several establishments in a chain can show differences in labor cost percentage and labor cost per meal.
3. *Person-Hour Comparison.* The total hours worked by all employees for one period can be compared with another period. This provides a useful means of comparison even when wages have changed.
4. *Person-Hours Per 100 Meals Served.* The total hours worked by all employees is figured for every 100 meals served.
5. *Sales per Person-Hour.* The income from sales is divided by the number of hours worked by employees for that period.
6. *Hourly Sales and Person-Hours.* A chart or graph is used to show sales and number of customers, gross profit, labor cost, and labor cost percentage each hour. It is used to determine the best opening and closing hours and to schedule workers during peak and slow periods.[2]

The food service manager may be able to reduce labor costs by using one or more of the following techniques:

1. Using machinery to replace or assist workers.
2. Rearranging equipment, kitchen, and service areas to save steps.
3. Using work simplification procedures in all tasks.
4. Rescheduling workers to meet demands at peak and slow periods.
5. Encouraging employees to help find ways to save time and energy, and to work together.

Basic techniques of work simplification are included in Unit VIII-5.

FOOD COST CONTROL

REFERENCE: Eshbach, Charles E. *Foodservice Management.* 3rd ed. Boston, Massachusetts: Cahners Books, 1979. pp. 90-98.

Food costs are an important factor in food service operations. The ratio between the cost of food served during a given period and the food sales for the period is called the *food cost percentage.* This ratio is used as a convenient measure of the food service establishment's success.

The difference between food costs and food sales is called *gross profit* or *markup.* For a food service operation to be successful, the markup must be large enough to cover labor costs and other operating expenses. Labor costs include salaries, uniforms, and employee meals. Other expenses include rent or cost of the building, utilities, insurance, taxes, cleaning supplies, and maintenance of equipment. In addition to these costs, the caterer must add fees, rents, and items purchased for each affair. Nonprofit operations may stop here; for a business, however, the markup also must provide enough money for a profit above expenses. If gross profit is not large enough to cover these expenses, the food service will operate at a loss. If the loss continues, the operation will have to close eventually.

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[2] *Ibid*, pp. 243-247.

The first step toward a break-even or profitable operation is to make sure that the gross profit is large enough. This depends primarily on food costs and labor costs. The average markup for food service businesses is 60 percent. Some businesses have a higher markup because their operating expenses are higher. Others are lower because they do not make a profit or because they offer less service.

Food Cost

Food cost is the cost of all foods used in the food service operation. It includes all transportation or delivery charges. It does not include any labor or other costs which occur after the food is delivered. To figure the food cost of a menu item, list the ingredients used to prepare the item. Note the amount used of each item. Find the cost of each food used. Total the food cost. For items prepared in quantity, find the cost of a standard recipe, then divide by the number of servings produced. For some foods it may be necessary to add an allowance for waste as well. This allowance provides for losses from sticking, spilling, shrinkage, or other causes.

Precosting Standard Recipes

Standard recipes ensure that the same quality and quantity of food results each time the recipe is prepared. Because the same ingredients are used in the same amounts each time the recipe is used, the manager can easily find the *cost per serving*. This is done by finding the cost of each ingredient used to make the recipe, then totaling the cost of all ingredients. The cost of all ingredients used to make the recipe is divided by the yield or number of servings to find the cost per serving. The procedure of finding the cost per serving is called *precosting*.

The manager bases the selling price of the food on the cost per serving. Therefore, precosting of recipes must be accurate and up-to-date. Precosting must be done frequently when prices are changing quickly.

A sample of a precosted recipe for Hungarian goulash is shown in Figure 2. Columns for precosting are often included on the recipe card. Figures are usually written in pencil so they can be changed as ingredient prices change.

FIGURE 2

Hungarian Goulash — Approx. yield: 50–6-oz. servings

Ingredients	*Amount*	*Market Price*	*Extension Cost*
Chuck roast	18 lb.	$ 1.75 per lb.	$ 31.50
Garlic	1 oz.	1.50 per lb.	.09
Flour	8 oz.	.36 per lb.	.18
Chili powder	¾ oz.	1.80 per lb.	.11
Tomato purée	1 qt.	1.48 per gal.	.37
Water	8 lb.	–	–
Bay leaves	2	–	–
Onions, minced	2 lb.	.40 per lb.	.80
Salt	1 oz.	.30 per lb.	.02
Pepper	¼ oz.	1.50 per lb.	.02
		Total Cost	33.09
		Cost per Serving	.661

Food Cost Percentage

The *food cost percentage* of a given meal depends mainly on three factors:

1. The cost of the food as purchased
2. The size of the portion served
3. The menu price paid by the customer.

To find the food cost percentage, divide the food cost of the item by its price. For example, if hamburger meat costs $1.49 per pound or about 9 cents per ounce, and a 4-ounce patty is used to make a hamburger, the cost will be 36 cents. If the hamburger is served on a bun with sauce, add that cost, say 9 cents. Then the total food cost of the hamburger is 45 cents. If the menu price is 90 cents, the food cost percentage is 50 percent (divide for percent). If the portion size is reduced to 3 ounces, the food cost would be 36 cents, and the food cost percentage 40 percent (divide for percentage). If the price of the 4 ounce hamburger is raised to 95 cents, the food cost percentage would be 37 percent (divide for percentage). When several items are served together for one price, the food cost for all items is added together. The total food cost is used in figuring the food cost percentage.

As shown in the example, the food cost percentage can be changed up or down by varying the food cost, the portion size, or the menu price. The manager must keep the food cost percentage from being so high that expenses cannot be met, or so low that customers are lost because they feel cheated.

Food Cost Controls

To control food costs effectively, the manager must do the following:

1. Decide on a standard food cost percentage.
2. Set a portion standard for all menu items.
3. Figure the cost for each serving.
4. Base menu prices on food costs and the standard food cost percentage desired.
5. Evaluate food costs periodically to determine whether the desired food cost percentage is achieved.
6. Develop a system to control food costs.

Physical inventories, daily purchase records, and daily food cost estimates aid in evaluating food costs. Physical inventories may be taken monthly or at the end of an accounting period. Inventories are used to evaluate food costs as follows:

1. *Determine* the value of the inventory at the beginning of the period.	$ 4,000
2. *Add food purchases* during the period.	+ 15,000
	$ 19,000
3. *Subtract the inventory* at the end of the period.	- 5,000
4. The *result* is the *cost of the food served* during the period.	$ 14,000
5. To determine the *food cost percentage* for the period, divide the food cost by the total food sales.	$ 14,000 ÷ 40,000 = .35 or 35%
6. To find the *food cost per meal,* divide the food cost by the number of meals served.	$ 14,000 ÷ 8,000 = $ 1.75

Another method of evaluating food costs compares the cost of food delivered daily with the daily sales figures. A weekly comparison is made also. This method does not include use of food on hand. Since daily purchases and sales vary, weekly totals are more reliable guides to cost trends. These daily and weekly records may be kept on a chart similar to the one in Figure 3.

A more effective daily method of control is based on keeping track of all the food used in food preparation. The total value of these items is compared then with total sales.

Although purchase cost, portion size, and menu price have the greastest effect on food cost, other factors may be involved. Additional factors to check include:

1. Errors in delivery
2. Spoilage in storage
3. Waste in preparation
4. Shrinkage in cooking
5. Carelessness in portioning
6. Losses in serving and distribution of food
7. Discrepancies in cash
8. Excessive leftovers
9. Pilferage
10. Meals to employees[3]

QUALITY CONTROL

The quality of the food produced is controlled primarily by the quality of the ingredients used, use of adequately trained employees, use of standardized recipes, careful production control, adequate portion control, quality of holding service, and control of the use of leftovers. In catering operations, transportation control also influences the quality of food.

Quality ingredients are acquired through careful purchasing procedures. These procedures are described in Unit XV-2. The quality of the ingredients is maintained through careful handling during storage (Unit XIV-2), preparation (Unit VIII), holding, and serving food (Unit XII-6 and Unit XIII). Maintaining the quality of foods purchased requires an adequately trained staff. Employees must know and practice sanitation. They must be skilled in food preparation and serving techniques. The use of standardized recipes (Unit VIII-1) minimizes the amount of preparation left to the cook's judgment. Standardized recipes aid in maintaining consistent quality and quantity in the foods prepared. Recipes should include pan size, temperatures, cooking time, yields, portioning and garnishing information, in addition to ingredients, amounts, and procedures.

Production Control

Production of menu items should be planned carefully. Past sales are the best available indicator of quantities needed. If too much food is prepared, waste and loss may result. It is often difficult to work leftovers into the next meal. Leftovers reduce profits because they require extra handling. If too little food is prepared, serving problems and delays result as well as unhappy customers.

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[3] *Ibid.*, p. 232.

FIGURE 3
Daily Purchase, Sales, and Food Costs
Month of ____________________

Day	Supplier	Meats	Produce	Bakery	Dairy	Groceries	Total	Total Purchases		Total Sales		% Cumulative Purchases to Sales
								Daily	Cumulative	Daily	Cumulative	
2	Anytown Bakery											
	City Ice Cream											
	Town Packers											
	Farmer's Dairy											
	General Grocery											
3	Anytown Bakery											
	Farmer's Dairy											
	Country Market											
4	Farm Market											
	A-1 Wholesale Grocery Co.											
5	Farmer's Dairy											
	Cattleman's Meat Co.											
	Fancy Bakers											
	United Fish Co.											
	Green Market											
	Best Packers											
6	Farmer's Dairy											
	Anytown Bakery											
	Farm Market											
	General Grocery											
Total for Week												
% to Total Purchases												

Portion Control

Portion control is an important part of food preparation and service. As food prices increase, portion control becomes even more important. Portion control begins with menu planning. Portions must be considered also when food is purchased. Some items are purchased preportioned. Quantities of other foods purchased are based on the number of portions used in a given period. Container sizes purchased may be influenced also by portion sizes.

Portioning is also a consideration during food preparation. Portion control is maintained by careful weighing and measuring during food preparation, and by use of standardized recipes.

A large amount of portion control occurs during serving. Portioning tools should be specified for every item served. These tools include portion scales, scoops, ladles, and markers. Portioning techniques are described in Unit VIII-4.

Transportation Control

In catering operations, control of transported foods, beverages, serviceware, and equipment is extremely important. Every item moved to another location must be listed, described, and counted. A standard list of supplies and equipment may be printed. Or a list may be written to fit each engagement. This form includes all information about the function: location, time, number of guests, menu, linen requirements, decorations, and so on. Several copies of the list are made. The list is used as a check sheet by each person who must supply or handle the items to be transported. After the function, the list is used to ensure return of all items to the catering establishment. It can be used also in billing the client for food, beverages, and services.

QUESTIONS:

1. List four factors which cause difficulty in getting and keeping good food service workers.
   a.
   b.
   c.
   d.

2. Describe five things which should be done during orientation to help new workers get a good start.
   a.
   b.
   c.
   d.
   e.

3. List five things which the manager can do to get the best results from training.
   a.
   b.
   c.
   d.
   e.

4. List four times when training is needed by food service workers.
   a.
   b.
   c.
   d.

5. List three advantages of a good training program for employees:
   a.
   b.
   c.

   for management:
   a.
   b.
   c.

6. Name five techniques used in production scheduling in food service operations.
   a.
   b.
   c.
   d.
   e.

7. Describe five ways the food service may be able to reduce labor costs.
   a.
   b.
   c.
   d.
   e.

8. Give six ways to control food costs.
   a.
   b.
   c.
   d.
   e.
   f.

9. List five ways the quality of food is controlled in food service operations.
   a.
   b.
   c.
   d.
   e.

In Items 10-14, match each production scheduling technique with its description. Place the letter of the technique in the blank to the left of its description. Use each letter only once.

Description

_____10. Workers not needed are released between meals.

_____11. Use of extra staff during peak periods.

_____12. Use of predictions of the number of guests expected.

_____13. Varying station times from one worker to another and from day to day.

_____14. Allotment of a given amount of money for a given amount of sales.

Technique

a. Irregular scheduling
b. Labor costs budgets
c. Part-time workers
d. Split-shift scheduling
e. Staffing tables

In Items 15-21, match each cost control term with its definition. Place the letter of the term in the blank to the left of its definition. Use each letter only once.

Description

_____15. Record of foods prepared for a meal.

_____16. Ratio between the cost of food served during a given period and the food sales for the period.

_____17. Process of identifying the task performed by each worker.

_____18. Procedure for finding the cost per serving.

_____19. Difference between food costs and food sales.

_____20. Statement of tasks to be performed by a worker.

_____21. Cost for all foods used in the food service operation.

Cost Control Term

a. Food cost
b. Food cost percentage
c. Gross profit
d. Job analysis
e. Job description
f. Precosting
g. Production schedule

ASSIGNMENTS:

I. Write a description of the orientation and training you were given at your place of employment. Compare the orientation you were given to the procedures described in this lesson. Who did the orientation? Who did the training? Have you received additional training since you were hired? If so, what?

II. Ask the manager of the food service establishment where you are employed to describe techniques used to control labor costs.

III. Ask the manager of the food service establishment where you are employed to describe techniques used to control food costs.

GROUP WORK:

I. Compare job descriptions of workers employed in different food service establishments.

II. Compare the ways food service workers are scheduled in several different food service establishments. Which types of production scheduling were used? Interview workers who work different types of schedules to learn how they feel about their schedule. What are the advantages and disadvantages of each type of schedule for workers? for management?

III. Compare the types of quality control used in different food service establishments. For each establishment give examples of control through the quality of ingredients used, use of adequately trained employees, use of standardized recipes, careful production control, and adequate portion control.

UNIT XV-4

INTRODUCTION TO FOOD SERVICE MANAGEMENT

SUBJECT: Merchandising and Public Relations

TASK: 58. Assist in the management of the food service establishment.

OBJECTIVES: When you finish this lesson, you should be able to

a. list the requirements a food service facility should meet before it starts a merchandising program
b. describe the types of merchandise that can be used
c. cite measures which contribute to good public relations for the establishment.

REFERENCES: Eshbach, Charles E. *Foodservice Management.* 3rd ed. Boston, Massachusetts: Cahners Books, 1979. pp. 285-299.

Weiss, Edith, and Weiss, Hal. *Catering Handbook.* New York, New York: Ahrens Publishing Company, Inc., 1971. pp. 63-74.

MERCHANDISING

Merchandising means presenting the merchandise in such a manner that people buy it. In food service the merchandising involves the food, service, prices, and surroundings. Merchandising activities include advertising, sales promotion, and showmanship. These activities should be part of a carefully coordinated plan called a merchandising program. The steps in developing a merchandising program are:

1. To study the product
2. To study the market
3. To develop a plan of advertising, promotion, and public relations to bring the market to the product.

Product Study

The food, service, prices, and surroundings are the *products* offered by the food service business. The first step in any merchandising study is to study the products you are offering. Can you be proud of the products you are offering? Before you try to get customers and increase sales, check:

1. *Location.* Is the location convenient? Is parking available? Is any historical or cultural value of the building, site, or area being used to advantage?
2. *Appearance of building.* Is the building clean and attractive on the outside? Does it look inviting?
3. *Outside sign.* Is the sign appropriate? Can it be seen easily? Does the sign identify the business quickly?
4. *Entrance.* Is the entrance clean and inviting?

5. *Public Areas.* Are the lobby, restrooms, and dining areas attractive and comfortable? Is the decor different from similar eating places? Is the temperature comfortable? Are there drafts? Does light glare through windows? Is lighting adequate? Is the building noisy?
6. *Food.* Is the food different from that at similar food service places? Is the food good? Is it always good? Is it served attractively? Is it served at the right temperature? Is the portion size appropriate?
7. *Service.* Is the service prompt and pleasant?
8. *Prices.* Do the prices fit the type of food service? Are prices appropriate to the items served? Do customers consider the prices reasonable?
9. *Capacity.* If you get more customers, can you handle them? Do you have enough seating space? Do you have the right equipment? Are workers well-trained?

Market Study

A *market study* finds out who is buying or might buy the product. It finds out where potential customers are located and what their food preferences are. Maps are drawn showing where the potential customers are. Customers may be found where they live, go to school, or work. Customers are found also in shopping centers, theaters, and sports and amusement centers. Market studies gather information on the numbers of persons found in these locations, the type of work they do, the hours they keep, and the meal periods they have.

Information needed for a market study could be obtained from a variety of sources. The Chamber of Commerce or civic organizations might have this information. A convention bureau can provide information about conventions which may bring prospective customers to town. Much of the information can be obtained by asking questions in the area surrounding your market.

Merchandising Program

Based on studies of the market and the restaurant's product, a merchandising program can be planned. This would include:

1. Selecting a theme
2. Planning advertising
3. Planning publicity
4. Planning sales promotion and showmanship

A *merchandising theme* is a planned idea used to help people remember the business. Historical and ethnic themes are used often by restaurants. Regional themes and attractions are also popular. The theme is used in naming the business, in choosing the decor, on signs and placemats, on menus and napkins, and in costumes worn by service personnel.

Advertising is how the business lets customers know where it is and what it has to offer. It may take the form of:

1. Signs, billboards, and posters
2. Telephone directory ads
3. Newspaper, radio, and television ads
4. Direct mail, telephone, or personal interview advertising
5. Advertising novelties

Restaurants generally use one to two percent of their total sales for advertising. To be sure that the money is spent wisely, careful records must be kept for each advertisement. Questions to be answered after the ad has been used include: How many people said they saw or heard the ad? How many coupons were returned? What was the effect on sales?

Publicity is attracting notice by sharing information of interest to the public with the media. Providing free meals to the needy at Christmas or the presence of a prominent guest might rate media coverage.

Sales promotions are schemes used to hold and attract customers. Examples include special celebrations, fashion shows, prizes, contests, and special prices.

Accepting credit cards also may promote sales. Many people prefer to pay for their meals with credit cards. A study done in 1980 by the National Restaurant Association found that 89 percent of the restaurant owners surveyed accepted credit cards. Of those, 41 percent said that credit card sales accounted for 25 percent or less of total sales; 25 percent said that credit card sales accounted for 25 to 50 percent of total sales; and 17 percent said credit card sales accounted for 50 percent or more of the total sales volume.

The most effective merchandising is *word-of-mouth.* This is what your customers tell others. If you are doing a good job, word-of-mouth brings in a lot of new customers. If not, no amount of advertisements, promotions, or gimmicks will help.

Showmanship is an important part of the restaurant business. Showmanship is the part of the food service that the customer remembers as something special or different. Food and beverage displays, attractive buffets and serving lines, preparation of food in view of customers, and costumed service personnel are examples of showmanship.

Food, beverages, and desserts are often displayed in lobbies and foyers to tempt customers. Serving foods with a flair in the dining room can tempt other customers to order the same thing. Serving flaming entrées and desserts, grilling meat in the dining room, or preparing special foods at the table gives a special flair. Just make sure the food is attractive.

The food placed on the buffet should be well-prepared, attractively garnished, and nicely displayed. If it is, people will buy many items they would not order from a menu. Besides increasing sales, an attractive buffet saves both preparation and serving time.

In nursing homes, school cafeterias, and other captive feeding situations, efforts to dress up the serving line pay off. People of all ages are attracted to foods that look pretty. In schools, the techniques used to sell foods in commercial restaurants and cafeterias can be used to promote the nutritious foods children should eat.

Service personnel can do much to increase sales of food and beverages. Employees must be taught how to sell the food they serve. When service personnel say positive things about the food, sales increase. When they remember to ask if the customer would like a beverage, soup, or dessert, sales increase. Servers must be able also to describe the food and preparation techniques used for each dish. A positive, polite, friendly attitude is the best asset you can bring to your job situation.

Other merchandising methods which can be used right at the table include menus, clip-ons, and tent cards. *Menus* can be done in a variety of forms. They can be printed, mimeographed, or handwritten. Some are written on blackboards or even wooden planks. Whatever form is used, the menu should be:

1. Clean
2. Readable
3. Limited to a reasonable number of items
4. Organized so items can be located quickly
5. Written in language customers can understand
6. Descriptive, but simple
7. Easy to change as prices or items change
8. In line with budget
9. Designed to sell the items you want to sell
10. Planned to fit the operation

Clip-ons are sheets clipped to the menu to sell a special item. The item may be something a little extra or at a reduced price.

A *tent card* is a folded card which stands on the table. Tent cards often feature special desserts or beverages. Customers often read them while they are waiting for their order to be taken or while they are eating. Don't be tempted to use too many tent cards. One well-planned card on the table can boost sales of an item. More than one adds confusion and clutter.

Another way to increase sales is through *point-of-purchase sales.* Various items are placed at the cashier's stand for customers to purchase as they pay their checks. The items often include candy and gum, cigars and cigarettes, packaged foods, novelties, and gift items.

Merchandising Catered Services

Ideally, catering services sell themselves. Every catering event is a sales presentation to potential customers. Wedding guests include future brides and their parents. Business banquet guests include business persons from other firms.

The catering business has an added advantage in finding customers. Possible customers are persons who already need catering services. Potential customers can be identified by studying reports of business and social activities in the newspapers, engagement announcements, announcements of fund-raising drives, lists of graduating seniors, or even birth certificates (to identify 12-year-old boys likely to have a bar mitzvah and girls likely to be coming out during the year). Selling catering services becomes simply a matter of following up these leads.

Other types of caterers simply look for information showing a need for their services.

Type of Caterer	*Sources of Potential Customers*
Mobile Food Service	Construction sites Sports events Fairs
Plant or Office Food Service	Development of new facilities Isolated plant or office facilities Areas where available food service is inadequate
Concession Food Service	Sports events Fairs Auctions
Coffee Service	Offices Retail businesses

A restaurant may advertise its catering services inexpensively to its own customers on the back of its menu.

PUBLIC RELATIONS

Public relations are the measures the business takes to win community respect. Sound public relations must be based on quality food served by well-trained employees who take pride and satisfaction in their work. Public relations must be based on good management. Good relations must be maintained with employees, customers, the community, and stockholders.

QUESTIONS:

1. List the three steps in developing a merchandising program.
   a.
   b.
   c.

2. List five things the food service manager should study about the food service establishment before a merchandising plan can be developed.
   a.
   b.
   c.
   d.
   e.

3. Describe four types of information about potential customers which may be obtained from a market study.
   a.
   b.
   c.
   d.

4. Name the four parts of a merchandising program.
   a.
   b.
   c.
   d.

5. Give four examples of showmanship in a food service business.
   a.
   b.
   c.
   d.

6. List five characteristics of a good menu.
   a.
   b.
   c.
   d.
   e.

7. Give four symptoms of communication problems in a food service operation.
   a.
   b.
   c.
   d.

8. Name and describe each step in the communication process.
   a.
   b.
   c.
   d.
   e.
   f.

9. Name four things that affect communication.
   a.
   b.
   c.
   d.

10. List three sources the caterer may use for getting leads to prospective customers.
    a.
    b.
    c.

11. Name five types of advertising which the caterer might use.
    a.
    b.
    c.
    d.
    e.

12. List five possible reasons why a caterer may lose customers.
    a.
    b.
    c.
    d.
    e.

ASSIGNMENTS:

I. Ask your employer to help you do a product study of the food service operation where you are employed.

II. Write a description of the merchandising program used by the food service establishment where you are employed.

GROUP WORK:

I. Collect printed food service advertisements from a variety of food service establishments. Possible sources include telephone directories, newspapers, periodicals, direct mail, and advertising novelties. Record or write descriptions of radio and television advertisements. Take pictures of signs, billboards, and posters advertising food service establishments. Compare the effectiveness of these types of advertising.

II. Develop a merchandising plan for the school cafeteria. Obtain permission from your school principal and cafeteria manager. Work with the cafeteria manager to do product and market studies. Select a merchandising theme. Plan advertising, publicity, and sales promotions for the school cafeteria. Suggest ways to improve showmanship of the facility. Obtain approval for your plans and put them into action. Work with the cafeteria manager to evaluate the results.

UNIT XV-5

INTRODUCTION TO FOOD SERVICE MANAGEMENT

SUBJECT: Accounting and Recordkeeping

TASK: 58. Assist in the management of the food service establishment.

OBJECTIVES: When you finish this lesson, you should be able to:

a. describe financial records needed in food service establishments
b. prepare balance sheets for a food service operation
c. figure profit or loss for a food service operation
d. analyze a profit and loss statement to determine how a food service operation could increase its profits or minimize its losses
e. figure the break-even point for a food service operation
f. list taxes which must be paid by the food service operation
g. describe special records kept by caterers.

REFERENCE: Eshbach, Charles E. *Foodservice Management.* 3rd ed. Boston, Massachusetts: Cahners Books, 1979. pp. 99-118.

FINANCIAL STATEMENTS

Accounting and recordkeeping are important parts of the food service establishment's control system. It is important to employ trained bookkeepers and accountants for this. However, a manager should be familiar with a few accounting procedures. Most accounting systems require two major financial statements. These statements are essential to the operation of the business. As prices and wages change rapidly, the manager must be aware of the operation's financial position at all times. The balance sheet and the profit and loss statement are the two reports which show the financial health of the food service business. A sample balance sheet is shown in Figure 1, p. 434. A sample yearly profit and loss statement is shown in Figure 2, p. 435.

If the food service shows a loss or only a small profit, the manager must find the cause and take steps to correct it. Some common reasons for low profit or a loss are:

Problem	*Possible Causes*	*Possible Solutions*
High payroll	Too many workers have been hired. Workers are being paid too much.	Lay off some employees. Cut the amount paid each worker.
High food and supply costs	Food is spoiling because too much was purchased. Too much is being paid for food and supplies	Make smaller purchases. Find less expensive suppliers. Buy cheaper quality. Practice portion control. Reduce waste. Eliminate theft. Raise prices.
Low income	Menu items are priced too low. Not enough advertising is being done. Too few customers are coming in.	Advertise more. Feature low-priced daily specials. Be sure facility is clean and attractive.

FIGURE 1
Anytown Restaurant
Balance Sheet
December 31, 19__

Assets			*Liabilities and Owner's Equity*		
Current Assets:			Current Liabilities:		
Cash (in bank and on hand)	$ 5,864		Accounts Payable	$ 3,528	
Accounts Receivable	1,526		Installment Accounts or Bank Notes Payable	14,680	
Food and Beverage Inventory	2,480				
Supplies	560		Payroll and Occupational Taxes Payable	892	
Total Current Assets		$10,430	Total Current Liabilities		$19,100
Fixed Assets:			Owner's Equity:		
Stationary Kitchen Equipment	$10,500		Owner's Equity	$10,550	
Hand Kitchen Equipment	2,493		Total Owner's Equity		$10,550
Dining Room Furniture and Fixtures	3,829				
Tableware, Glassware, Flatware, and Linens	2,578				
Total Fixed Assets		$19,400			
Total Assets (Current and Fixed)		$29,830	Total Liabilities and Owner's Equity		$29,650

Definitions:

Cash – all the money Anytown Restaurant has in the bank or in the cash register on December 31
Accounts Receivable – money owed to Anytown Restaurant by customers
Acounts Payable – money Anytown Restaurant owes to suppliers and lenders
Owner's Equity – the value of the owner's investment in the business. Also called capital or net worth.

FIGURE 2
Anytown Restaurant
Profit and Loss Statement
March 31, 19__

Total Sales:		$750,000	100%
Food Cost:			
Inventory at Beginning of Year	$ 75,000		
Food Purchases During the Year	225,000		
Total	300,000		
Less: Final Inventory	- 50,000		
Cost of Food Sold		250,000	33.3%
Gross Profit		$500,000	66.7%
Expenses:			
Salaries	200,000		26.7%
Other Expenses	150,000		20.0%
Total Operating Expenses		350,000	46.7%
Net Profit		$ [illegible]50,000	20.0%

BREAK-EVEN ANALYSIS

REFERENCE: Eshbach, Charles E. *Foodservice Management.* 3rd ed. Boston, Massachusetts: Cahners Books, 1979. pp. 140-157.

Break-even analysis is a way to find the point where income and expenses are equal. To determine this, costs must be figured. Costs are divided into two major categories: variable and fixed.

Variable costs include all changeable costs. These are the expenses that change as the amount of sales change. If more food is served, food and serving expenses are higher. If less food is served, food and serving expenses are less. Variable serving expenses include:

1. Paper supplies – guest checks, registry tapes, paper napkins, toothpicks
2. Laundry – uniforms, kitchen towels, tablecloths, napkins
3. Part-time employees – extra help for busy days
4. Tableware replacement – glassware, dishes, flatware

Fixed costs are expenses that are always the same. They do not change as sales go up and down. Fixed costs include two types of expenses: occupational expenses and primary expenses.

1. *Occupational expenses* are expenses which must be paid just because someone owns the business. These expenses continue whether or not the food service business is open. Occupational expenses include property tax, insurance, interest or mortgage, and depreciation on equipment, furniture, and the building. [NOTE: *Depreciation* is the amount something decreases in worth during a given period.]

2. *Primary expenses* are those which occur only when the food service business is open. These expenses do not change as the numbers of customers change. Primary expenses include:
    - Utilities (gas, electricity, water)
    - Basic staff (the number of employees the business must have to open)
    - Telephone (service cost and long distance calls)
    - Repairs and maintenance (for building and equipment)
    - Licenses (beverages, etc.)
    - Extermination (services to get rid of insects and rodents)

Figuring the Break-Even Point in Percentages

The figures in the break-even formula can be changed to percentages. This makes it easier for the manager to see the relationship between sales and expenses. Remember that total sales always equals 100 percent. Once the gross profit is found, it is easy to find the break-even point.

Example: The variable costs of Anytown Restaurant are 40 percent of the total sales. The fixed costs are $20,000. To find the break-even point, first find the Gross Profit Percentage as follows:

100%	Total Sales
- 40%	Variable Costs
60%	Gross Profit

Subtract the variable cost percentage (40 percent) from total sales (100 percent). The result is the gross profit (60 percent). Next divide the gross profit percentage (60 percent) into the amount for fixed costs ($20,000) to find the break-even point.

$$\$20{,}000 \div .6 = 33{,}333$$

Anytown Restaurant must have total sales of $33,333 to break even. Any sales above $33,333 bring profit. If sales should fall below $33,333, the difference between sales and the break-even point accounts for most of the amount of the loss.

Nonprofit food service operations should come as close as possible to this figure. Businesses must show a profit beyond the break-even point to remain in operation.

If Anytown Restaurant had $40,000 in sales, it would show a profit. The manager knows that the variable costs are always 40 percent of total sales; the fixed costs of $20,000 do not change. To find the amount of profit $40,000 would give, the manager uses the break-even analysis formula. The figures are:

Total Sales	$ 40,000	100%
Less: Variable Costs	-16,000	40%
Gross Profit	24,000	60%
Less: Fixed Costs	-20,000	
Net Profit	$ 4,000	

If Anytown Restaurant had sales of only $20,000, how large would its loss be? The manager would find the amount of the loss by using the break-even analysis formula. The loss would be found as follows:

Total Sales	$20,000	100%
Less: Variable Costs	- 8,000	40%
Gross Profit	12,000	60%
Less: Fixed Costs	- 20,000	
Net Loss	- $ 8,000	

Notice that the amount of variable costs changed as the dollar amount of sales changed in the two examples. At the same time, their percent of sales did not change. This is because it costs more money to serve more people.

Remember that all sales above the break-even point bring profit. All sales below the break-even point cause loss. The figures from the previous examples show that this is true.

Above Break-even Point	*Break-even Analysis of Sales*	*Below Break-even Point*
$ 40,000	Total Sales	$ 20,000
- 33,333	Break-even Point	- 33,333
$ 6,667	Difference	$ 13,333
x .6	Gross Profit Rate	x .6
$ 4,000 *Profit*		$ 7,999 *Loss*

TAX RECORDS

The profit or net income of a food service business is the amount it has taken in above expenses before taxes. The food service business must pay federal, state, and local taxes. These taxes include:

Federal	Employees Federal Withholding Tax Income Tax Social Security
State	Employees State Withholding Tax Income Tax (not in Texas) Sales Tax (not in all states) Various Licenses
Local	Employees City Withholding Tax (not in all cities) City Income Tax (not in Texas) Personal Property Tax Occupational Tax Various Licenses Real Estate Tax

Employers are required by law to keep payroll records. These records must include the total earnings of each employee, the amount of tips reported by each employee, the amount of withholding tax kept out of each employee's paycheck, the amount of Social Security taxes withheld, and other deductions, such as unemployment and disability insurance.

Withholding Taxes

An employer must deduct *withholding taxes* and Social Security taxes from each employee's paycheck. Special charts are available for finding the amount of taxes to be withheld. The money deducted from the employee's paycheck is sent to the government. The government credits the money to the employee.

At the end of the year the employer sends each employee a *W-2 Form.* This is a statement of wages paid and taxes withheld. It shows the total amount of money earned, and how much money was withheld, such as state and city income taxes. Three copies of the form are sent to each employee. The employee files one coy with the federal income tax return and one with the state return (if the state taxes income), and keeps one copy for the individual's personal files.

Information and help in preparing federal income tax returns can be obtained from a local Internal Revenue Service office. Help also can be obtained from licensed accountants who fill out returns for a fee.

Food service employees must pay taxes on both wages and cash tips. If a certain amount of cash tips is received during a calendar month, the employee must give the employer a written statement of the amount. The employer deducts from the employee's paycheck the proper amount of withholding tax for these tips. Or the employee pays the employer the amount of tax due out of the tips collected.

The cost of meals furnished the employee by the employer also is considered part of the employee's income. The value of these meals is subject to income tax unless it can be shown that the employee was given the meals for the convenience of the employer.

Social Security Taxes

Under the terms of the Social Security Act, the employee's wages include all money "paid or received for services." For most food service employees, this amount includes salary and tips. If employees receive commissions or bonuses, *Social Security taxes* must be paid on them as well. Besides the amount of Social Security tax deducted from the employee's paycheck, a tax equal to that amount must be paid by the employer. Self-employed persons like caterers also must pay Social Security taxes on their income.

State Income Taxes

In many states, income or payroll taxes must be withheld for the state government. The amount withheld varies from state to state. Texas does not have a state income tax. Where cities tax income, money must be withheld from the employee's paycheck for the city government.

Sales Taxes

Most states, including Texas, have a *sales tax*. This tax is a certain percentage of the purchase amount. The sales tax is added to the amount of each purchase made within that state. The amount of the sales tax varies from state to state. Some cities also charge sales tax. The business owner collects the tax and gives the receipts to the state government. In some states certain types of food sales are exempt from the tax.

Licenses

Most states and cities require licenses to serve food and drink. The licenses required vary from state to state and city to city.

Real Estate Taxes or Property Taxes

Real estate taxes are assessed to provide local services. These services include schools, fire departments, police departments, and local governments. The money is used also for local projects like improving streets and sewers, or building and maintaining parks. Property owners pay real estate taxes, and benefit most from these services. The tax is based on the amount of money needed to operate the local governments which provide these services.

Real estate taxes are usually a percentage or a certain amount for every $100 or $1000 of assessed value. The *assessed value* varies from a small percentage to full market value, depending on the locale. For example, the value of Anytown Restaurant is $75,000. If its assessed value is 40 percent of market value, real estate taxes for the property are figured on $30,000. The tax rate is the formula used to determine the amount of taxes owed on property. Let's see how much real estate tax its owner must pay if the local tax rate is:

Tax Rate	*Calculation*
$32 per $1000 of assessed value	$30,000 ÷ $1000 = 30 x $32 = $960
$6.215 per $100 of assessed value	$30,000 ÷ $100 = 300 x $6.215 = $1864.50
5.5 percent of assessed value	$30,000 ÷ 5.5% = $1650

OTHER RECORDS

All food service operations must keep essential financial and operational records. Financial records include daily income and expense records, balance sheets, profit and loss statements, and tax records. Operational records kept by food service operations have been described in other lessons. They include recipe cost records, menu pricing records, daily food cost reports, and perpetual and physical inventories. Other records may be needed as well, depending on the type of food service operation.

CATERER'S RECORDS

REFERENCE: Weiss, Edith, and Weiss, Hal. *Catering Handbook*. New York: Ahrens Publishing Company, Inc., 1971. pp. 75-87.

The caterer's records must include all of the many details of past, current, and future business. Much of the information is given in condensed form. The caterer's files must include information on sales and bookings, as well as operational records.

Sales and Booking

Records of sales and bookings may include: function file envelopes or folders, master cards, follow-up cards, sales report forms, tentative booking reports, confirmed booking reports, cancellation reports, backlog summary reports of lost business, and contacts.

Function files generally hold all correspondence records, forms, and reports on a particular account.

A *master card* is made for each potential customer. It generally includes the following information.

1. Name of organization
2. Name and address of executive or elected officer in charge (or private individual)
3. Names, addresses, and telephone numbers of local representatives of the organization
4. Type of affair
5. Attendance expected
6. Date (exact or approximate)
7. Other booking (past, current, or future)
8. Any special requirements

Follow-up cards are made from information recorded on master cards. These cards are usually filed by date. They are used to contact potential customers to offer the caterer's services for coming events. A *sales report* is made following each contact to record the results of sales efforts.

If the person contacted shows interest in using the caterer's services, a *tentative booking report* is made. However, no action is taken until the booking is confirmed. Then a *confirmed booking report* is made. Both reports contain the same information, but the confirmed booking may be made on a contract form. The booking forms include:

1. The name of the organization
2. The contact's name, title, address, and telephone number
3. Details on the type of function
4. Date of function
5. The place of the function
6. The number in the group
7. Rates including taxes and tips (and how tips will be handled)
8. Instructions
   a. Menu
   b. Serving time
   c. Seating
   d. Style
   e. Head table and other table arrangements
   f. Ticket collection (if applicable)
   g. Service extras, such as special flowers, decorations, audiovisual equipment, entertainment
   h. Details of equipment arrangement
   i. Linens
   j. Service plans
   k. Floor plans

If the event is cancelled, a *cancellation report* is completed. If the booking had been confirmed, the caterer makes any refund of deposit according to the terms of the contract.

When potential customers decide not to use the caterer's services, a *report of lost business* may be filed. Studying these reports can help the caterer evaluate its services and its competition.

The caterer can also use summaries of bookings to make decisions on rates and the profitability of each type of function. Such a record is called a *backlog summary*. It may be completed by the week or by the month depending on the size of the operation.

Operational Records

Once bookings are made, more forms are needed to be sure the function is carried out according to the customer's wishes. Copies of all forms are kept in the function envelope or file. The forms needed to carry out a function may include a function work order, departmental work orders, purchase orders, schedules, event résumés, and weekly function sheets.

The *function work order* is a copy of the contract or order for the function. In a large catering business, each department may be given written instructions on its responsibilities for the function on a *departmental work order*.

Purchase orders and requisitions for food and supplies are similar to those used in other food service operations. Purchases for a catered affair may include special equipment, rentals, flowers, and entertainment not usually purchased by other types of food service operations. These purchases are usually made by the management.

Catering events must be scheduled carefully. Accurate and detailed *schedules* provide the information needed for scheduling personnel production, equipment, transportation, and service. If the individual event requires special instructions, an *event résumé* will outline these.

The *weekly function sheet* is used to summarize all of the operation's activities. Its purpose is to serve as a master check list for the week. It helps to avoid duplicate commitment of rooms, personnel, equipment, and production facilities.

QUESTIONS:

1. Name and describe the two major financial statements prepared by food service managers.
   a.

   b.

2. List three objectives of budgeting.
   a.

   b.

   c.

3. Name and describe three types of budgets.
   a.

   b.

   c.

4. Name three types of taxes food services must pay to each of the following governments.
   a. Federal

   b. State

   c. Local

In Items 5-6, prepare balance sheets for the food service businesses. Find the total assets, total liabilities, owner's equity, and total liabilities and owner's equity.

5. The Old South Restaurant had the following assets as of December 31: cash $4,256; accounts receivable $1,400; food and beverage inventory $4,000; supplies $425; stationary kitchen equipment $7,220; hand equipment $695; dining room furniture and fixtures $4,900; and dinnerware, glassware, flatware, and linen $2,460. The restaurant's liabilities were as follows: accounts payable $7,295; installment accounts or bank notes payable $9,150; and payroll and occupational taxes payable $935.

Old South Restaurant
Balance Sheet
December 31, 19__

Assets		*Liabilities and Owner's Equity*	
Current Assets:		Current Liabilities:	
Cash	$______	Accounts Payable	$______
Accounts Receivable	______	Installment Accounts or Bank Notes Payable	______
Food and Beverage Inventory	______	Payroll and Occupational Taxes Payable	______
Supplies	______		
Total Current Assets	______	Total Current Liabilities	______
Fixed Assets:		Owner's Equity:	
Stationary Kitchen Equipment	$______	Owner's Equity	$______
Hand Kitchen Equipment	______		
Dining Room Furniture and Fixtures	______		
Dinnerware, Glassware, Flatware, and Linens	______		
Total Fixed Assets	______	Total Owner's Equity	______
Total Assets (Current and Fixed)	$______	Total Liabilities and Owner's Equity	$______

6. Hamburger Sam's Drive-In had the following assets as of June 30: cash $3,260; accounts receivable $275; food and beverage inventory $2,950; supplies $475; stationary kitchen equipment $5,850; hand kitchen equipment $2,030; serving equipment and dishes $2,800; and furniture and fixtures $2,550. The liabilities were as follows: accounts payable $620; notes payable $2,450; Social Security tax $275; and state sales tax $315.

Hamburger Sam's Drive-In
Balance Sheet
June 30, 19__

Assets		*Liabilities and Owner's Equity*	
Current Assets:		Current Liabilities:	
Cash	$______	Accounts Payable	$______
Accounts Receivable	______	Notes Payable	______
Food and Beverage Inventory	______	Social Security Tax	______
Supplies	______	State Sales Tax	______
Total Current Assets	______	Total Liabilities	______
Fixed Assets:		Owner's Equity:	
Stationary Kitchen Equipment	$______	Owner's Equity	$______
Hand Kitchen Equipment	______		
Serving Equipment and Dishes	______		
Furniture and Fixtures	______		
Total Fixed Assets	______	Total Owner's Equity	______
Total Assets (Current and Fixed)	$______	Total Liabilities and Owner's Equity	$______

In Items 7-8, prepare profit and loss statements for the food service businesses. Find the cost of the food sold, gross profit, total operating expenses, net profit, and percentage of sales for each food service establishment. Put the figures in the correct places on the form provided.

7. Seaside Cafeteria had total sales for the month of April of $26,820. Their inventory at the beginning of the month was $8,025. During the month they made purchases that totaled $9,860. The final inventory at the end of the month was $7,140. Seaside Cafeteria had the following expenses during the month: salaries $5,340; Social Security taxes $315; rent $600; laundry and linens $115; repairs and maintenance $248; advertising $75; taxes and insurance $224; supplies $116; depreciation $375; utilities $294; and miscellaneous expenses $174.

Seaside Cafeteria
Profit and Loss Statement
For the Month of April, 19__

Total Sales		$________	________%
Food Cost:			
Inventory at Beginning of Month	$________		
Purchases for the Month	________		
Total	________		
Less: Final Inventory	________		
Cost of Food Sold		$________	________%
Gross Profit		$________	________%
Expenses:			
Salaries	$________		________%
Social Security Taxes	________		________%
Rent	________		________%
Laundry and Linens	________		________%
Repairs and Maintenance	________		________%
Advertising	________		________%
Taxes and Insurance	________		________%
Supplies	________		________%
Depreciation	________		________%
Utilities	________		________%
Miscellaneous Expenses	________		________%
Total Operating Expenses		$________	________%
Net Profit		$________	________%

8. La Casa Restaurant had total sales for the month of October of $76,400. Their inventory at the beginning of the month was $8,600. During the month they made purchases that totaled $25,700. The final inventory at the end of the month was $8,450. La Casa Restaurant had the following expenses during the month: salaries $16,200; Social Security taxes $897; rent $700; laundry and linens $195; repairs and maintenance $547; advertising $150; taxes and insurance $426; supplies $260; depreciation $675; utilities $365; and miscellaneous expenses $239.

La Casa Restaurant
Profit and Loss Statement
For the Month of October, 19__

Total Sales		$________	________%
Food Cost:			
Inventory at Beginning of Month	$________		
Purchases for the Month	________		
Total	________		
Less: Final Inventory	________		
Cost of Food Sold		$________	________%
Gross Profit		$________	________%
Expenses:			
Salaries	$________		________%
Social Security Taxes	________		________%
Rent	________		________%
Laundry and Linens	________		________%
Repairs and Maintenance	________		________%
Advertising	________		________%
Taxes and Insurance	________		________%
Supplies	________		________%
Depreciation	________		________%
Utilities	________		________%
Miscellaneous Expenses	________		________%
Total Operating Expenses		$________	________%
Net Profit		$________	________%

In Items 9-10, find the break-even point, prove your answer, and find the amount of profit or loss for each food service business described below.

9. The Alamo Cafeteria did $120,000 in sales. Their variable costs were 36 percent of total sales and fixed costs were $34,000.

Solution:

Sales ______%
Variable Cost ______%
Gross Profit Percent ______%

__________ ÷ __________ = __________ Break-Even Point

Proof:

Sales __________ ______%
Gross Profit __________ ______%
Fixed Cost __________
Net Profit (Loss) __________ Break-Even

Profit or Loss:

Sales __________ ______%
Variable Costs __________ ______%
Gross Profit __________ ______
Fixed Costs __________
Net Profit (Loss) __________ Break-Even

10. Old El Paso Restaurant did $75,000 in sales. Their variable costs were 42 percent of the total sales and the fixed costs were $26,150.

Solution:

Sales ______%
Variable Costs ______%
Gross Profit Percent ______%

__________ ÷ __________ = __________ Break-Even Point

Proof:

Sales __________ ______%
Variable Costs __________ ______%
Gross Profit __________ ______%
Fixed Costs __________
Net Profit (Loss) __________ Break-Even

Profit or Loss:

Sales __________ ______%
Variable Costs __________ ______%
Gross Profit __________ ______%
Fixed Costs __________
Net Profit (Loss) __________

In Items 11-18, match each tax term with its definition. Place the letter of the term in the blank to the left of each definition. Use each letter only once.

Definitions

______11. A statement of wages paid and taxes withheld from an employee's paychecks for the year.

______12. Percentage of market value on which property taxes are paid.

______13. Percentage of purchase prices paid to the state or city government.

______14. Amount withheld from the employee's paycheck to pay income taxes.

______15. All money paid or received for services based on income.

______16. Amount paid jointly by employee and employer, or in full by self-employed person.

______17. Amount paid on value of property to provide local services.

______18. Formula used to determine amount of taxes owed on property.

Tax Terms

a. Assessed value
b. Real estate or property taxes
c. Sales tax
d. Social Security tax
e. Tax rate
f. W-2 Form
g. Wages
h. Withholding tax

In Items 19-30, match each type of catering record with its description. Place the letter of the catering record in the blank to the left of each description. Use each letter only once.

Descriptions

______19. Holder of all correspondence, records, forms, and reports on a particular account.

______20. Information available on each potential customer.

______21. Information filed by date for use in making contacts.

______22. Report made of sales after each contact.

______23. Report of interest in using caterer's services.

______24. Contract agreement to use the caterer's services.

______25. Report that an event has been cancelled.

______26. Report on reasons customer chose not to use caterer's services.

______27. Summary of business during given period.

______28. Copy of contract or order for a function.

______29. Written instructions on responsibilities for a function.

______30. Summary of activities during a given period.

Catering Record

a. Backlog summary
b. Cancellation form
c. Confirmed booking report
d. Departmental work order
e. Follow-up card
f. Function file
g. Function work order
h. Master card
i. Report of lost business
j. Sales report
k. Tentative booking report
l. Weekly function sheets

ASSIGNMENTS:

I. Ask your training sponsor to show you the financial records kept in the food service establishment where you work. If possible, obtain copies of the forms used. Compare the parts of these forms with those described in this lesson. Ask your training sponsor to explain any parts you do not understand.

II. Ask your training sponsor to give you some sample figures to use in practicing completing balance sheets, profit and loss statements, and break-even analysis.

GROUP WORK:

I. Invite someone from the Internal Revenue Service or Small Business Administration to explain the importance of careful recordkeeping in small business. What records are needed to check the financial health of a business? What records are necessary for tax purposes?

II. Invite a local caterer to explain the records kept in a catering business. How do this caterer's records compare with those described in this lesson?

UNIT XV-6

INTRODUCTION TO FOOD SERVICE MANAGEMENT

SUBJECT: Laws and Regulations

TASK: 58. Assist in the management of the food service establishment.

OBJECTIVES: When you finish this lesson, you should be able to

- a. describe provisions of the Fair Labor Standards Act
- b. cite the types of state laws which protect workers
- c. explain the employer's role in collecting income taxes from the food service employees
- d. describe the employer's role in collecting Social Security taxes from food service employees
- e. describe the types of compensation insurance employers must provide for employees
- f. describe the employer's role in dealing with labor unions
- g. identify situations where food service jobs would be under civil service
- h. describe regulations for handling job complaints and termination.

REFERENCE: Cornelius, Ethelwyn G. *Food Service Careers*. Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. pp. 311-326.

Many federal, state, and local laws and regulations affect food service operations. These laws and regulations are designed to protect workers and the public.

Food service operations must observe several types of laws and regulations. The laws include labor laws, income tax laws, Social Security laws, unemployment compensation laws, worker compensation laws, and health and sanitation laws. The food service must obtain and renew licenses and permits to sell food and beverages. Fire regulations must be observed. Building and zoning codes must be observed.

The laws and regulations which affect food service change from time to time. In addition, some of the laws which apply to food service businesses do not apply to nonprofit food service operations. These changes and differences make it important for food service managers to learn and to keep up with food service laws and regulations. State and local food service laws and regulations vary from place to place. Food service managers should keep informed about laws in effect where their establishments are located. Current information can be secured from local or state restaurant associations and the National Restaurant Association.

The manager should pay particular attention to the following requirements of food service laws and regulations:

1. *Records.* What records must be kept?
2. *Reports.* What reports must be made? When? To whom?
3. *Posting.* What notices must be posted in the food service establishment? Where?
4. *Inspection.* Is inspection required? By whom? What is to be inspected? How can inspectors be identified?

Often problems may occur which an inexperienced manager cannot foresee. One such problem is solicitation on the work premises (selling products by employees or outsiders). To avoid this problem, a solicitation clause is a safeguard. Be sure the solicitation clause is instituted before employees are hired. It cannot be enforced after the solicitation has occurred. Below is an example of a solicitation clause.

> For your protection and to avoid disruption of work, outside solicitors will not be permitted to solicit employees on the company's premises. The solicitation of employees by other employees will not be permitted during working time. This includes the buying of chances, the placing of orders for merchandise, the selling of subscriptions or tickets, or solicitation for any other purpose. Included also is solicitation for membership in any organization, or for participation in any social or recreational group.
>
> Also prohibited is the distribution or circulation of leaflets, pamphlets, literature, and other materials among employees during working time or in working areas of the establishment.

While labor unions are discussed in the reading assignment from the employer's point of view, managers too will find they must deal with labor unions. In many states, labor unions for food service employees are just now being organized. Further information on how to deal with labor unions can be obtained from your state restaurant association.

QUESTIONS:

1. List the four general requirements the food service manager should be aware of in food service laws and regulations.
   a.
   b.
   c.
   d.

2. List the five major subjects covered by the Fair Labor Standards Act.
   a.
   b.
   c.
   d.
   e.

3. List five deductions which an employer may make from an employee's paycheck. Write "Required" beside the two which must be deducted.
   a.
   b.
   c.
   d.
   e.

4. Describe the restrictions federal child labor laws place on food service employment of persons.
   a.

   b.

5. Place the name of each form related to income taxes beside its form number.
   a. W-4
   b. W-4E
   c. 4070
   d. W-2
   e. 1040

6. Explain why the employer must have the Social Security number of each employee.

7. Name the two types of compensation insurance the employer may be required to carry.
   a.
   b.

8. Texas has a Right-to-Work law. What is the purpose of this law?

9. Define collective bargaining.

10. Explain when a food service job might be a civil service job.

ASSIGNMENTS:

I. Interview a member of the local restaurant association to learn what laws and regulations must be observed by food service establishments in your area. For each law or regulation, find out the manager's responsibilities regarding records, reports, posting, and inspection.

II. Ask your employer to show you the records and reports which must be kept by food service operations in your area.

GROUP WORK:

I. Survey the food service establishments in which you are employed to find out the following:
   a. Minimum wages
   b. Average amount of tips collected
   c. Fringe benefits offered, such as sick leave, vacations, meal allowances, uniforms

II. Interview food service managers to learn how they handle job complaints and job termination.

REFERENCES REQUIRED FOR USE WITH INSTRUCTIONAL MATERIALS

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FOOD SERVICE

* Cornelius, Ethelwyn G. *Food Service Careers.* Peoria, Illinois: Chas. A. Bennett Co., Inc., 1979. [NOTE: The 1974 edition of the *Food Service Careers* may be used for this reference. Changes in the 1979 edition are minor and page numbers for readings remain the same. The 1979 edition is listed as the required reference because the 1974 edition has been canceled by the publishers according to the 1979-80 *Books in Print.*]

† Eshbach, Charles E. *Foodservice Management.* 3rd ed. Boston, Massachusetts: Cahners Books, 1979. (Order from CBI Publishing Co., Inc., 51 Sleeper Street, Boston, Massachusetts, 02210.)

* † Lewis, Dora S.; Peckham, Gladys C.; and Hovey, Helen S. *Family Meals and Hospitality.* New York: Macmillan Publishing Co., Inc., 1972.

* Weiss, Edith, and Weiss, Hal. *Catering Handbook.* New York: Ahrens Publishing Co., Inc., 1971. (Order from Hayden Book Co., Inc., 50 Essex Street, Rochelle Park, New Jersey 07662.)

* Required reference

† State adopted textbook